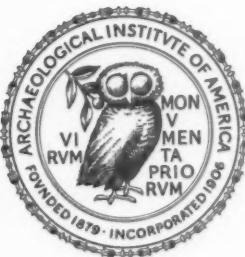
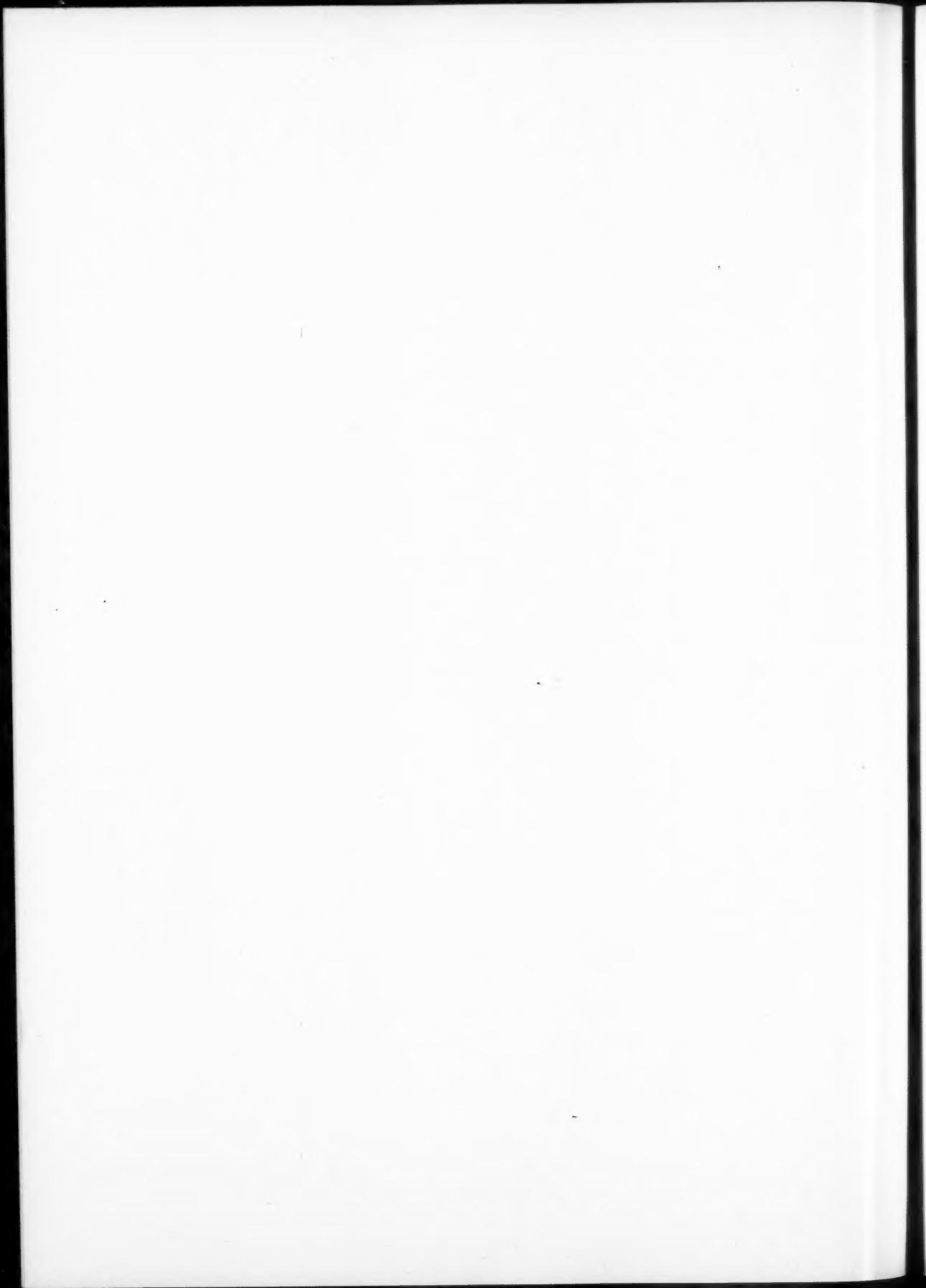


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ARCHAEOLOGICAL NOTES

RECENT ACQUISITIONS OF THE MUSEUM OF FINE ARTS, BOSTON

1. **GRAECO-ETRUSCAN GOLD FIBULA** with granulated decoration (Fig. 1). The bow is in the form of a team of mules, represented with one body, one foreleg and one hindleg, but with two heads and two tails. Early seventh century B.C. Length, 4.2 cm. Published by C. Densmore Curtis, *J.R.S.* IV, 1914, pp. 17-25, Pl. I, and in his article "Ancient Granulated Jewelry of the Seventh Century and Earlier," *Memoirs of the American Academy in Rome* I, 1917, p. 80, Pl. 19.

This admirable piece of early Etruscan goldsmith's work has been exhibited in the Museum since 1915 as a loan by Densmore Curtis and, after his death, by his brother, Kenneth L. Curtis. It has now been added to the permanent collection.



FIG. 1.—ETRUSCAN GOLD FIBULA

2. **GREEK TRUMPET**, of ivory and bronze (Fig. 2). Length, 1.57 m., or just over five feet. The tube is of ivory, made in thirteen sections neatly fitting into one another, and strengthened at the joints by bronze rings (Fig. 3). Its diameter is about 1.8 cm.; its thickness about 2.5 mm. (cf. the draw-

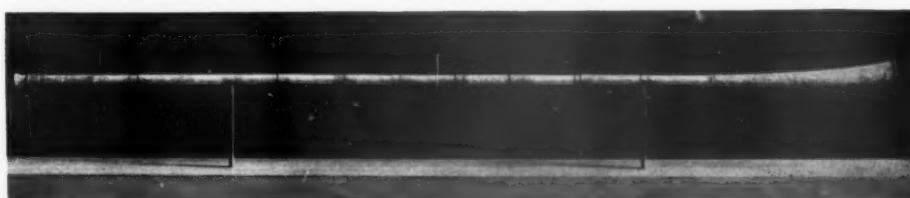


FIG. 2.—GREEK TRUMPET OF IVORY AND BRONZE

ing, Fig. 4). The ivory mouthpiece is 4.8 cm. long. The funnel-shaped bronze bell is 31.7 cm. long with a diameter of 7.7 cm. at the opening (Fig. 5). The mouthpiece, the funnel, and the end of the tube are decorated with simple mouldings. A bronze chain, 56 cm. long, with a ring at each end, came with the trumpet, and was presumably found with it. One end of this chain may have been fastened to the bell of the trumpet where the ends of two rivets and traces of an applied strip of bronze are visible (cf. Fig. 5). The sections of the tube vary considerably in length. The one next to the mouthpiece is now only 2.7 cm. long, but it shows signs of having been cut down, either in antiquity or since its finding. The remaining twelve sections, as now put together, increase in length irregularly from 6.7 cm. to 12.9 cm. (All the lengths given apply to the portions visible when the sections are assembled.) The bronze rings at the joints vary in width from 1 to 2 cm. Two of them are modern, as well as part of another. A few missing



FIG. 4.—
GREEK
TRUMPET.
DRAWING TO
SHOW
DIAMETERS

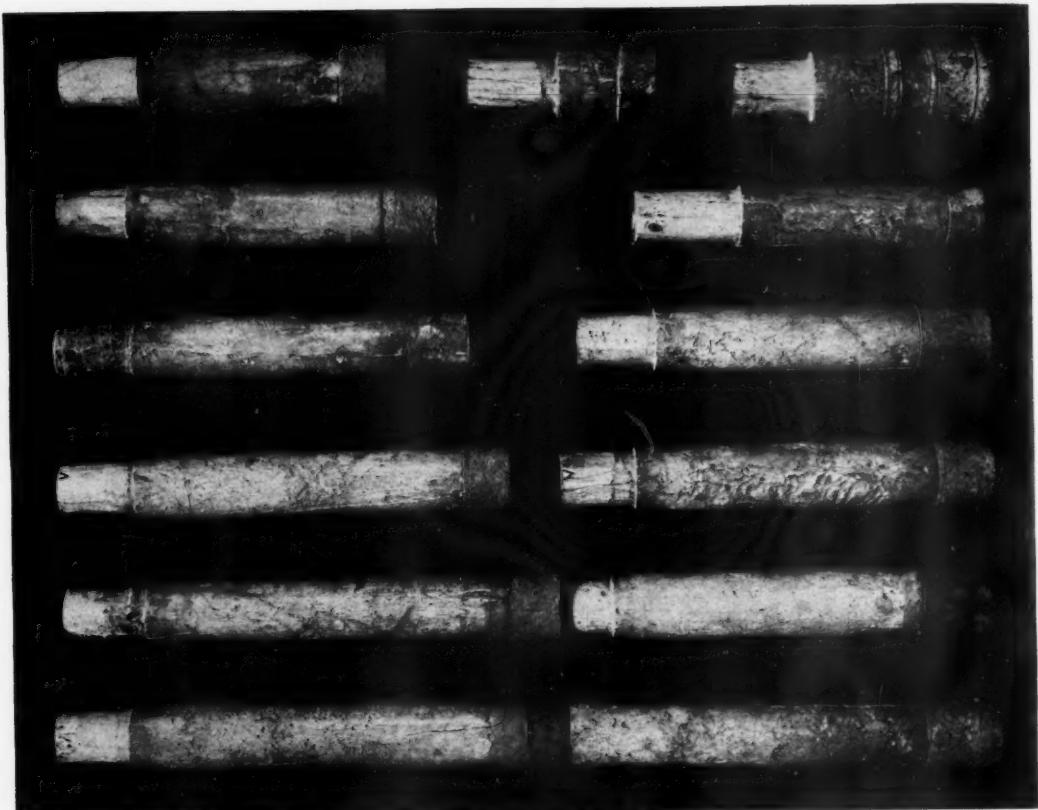


FIG. 3.—GREEK TRUMPET. IVORY MOUTHPIECE AND TUBE IN SECTIONS

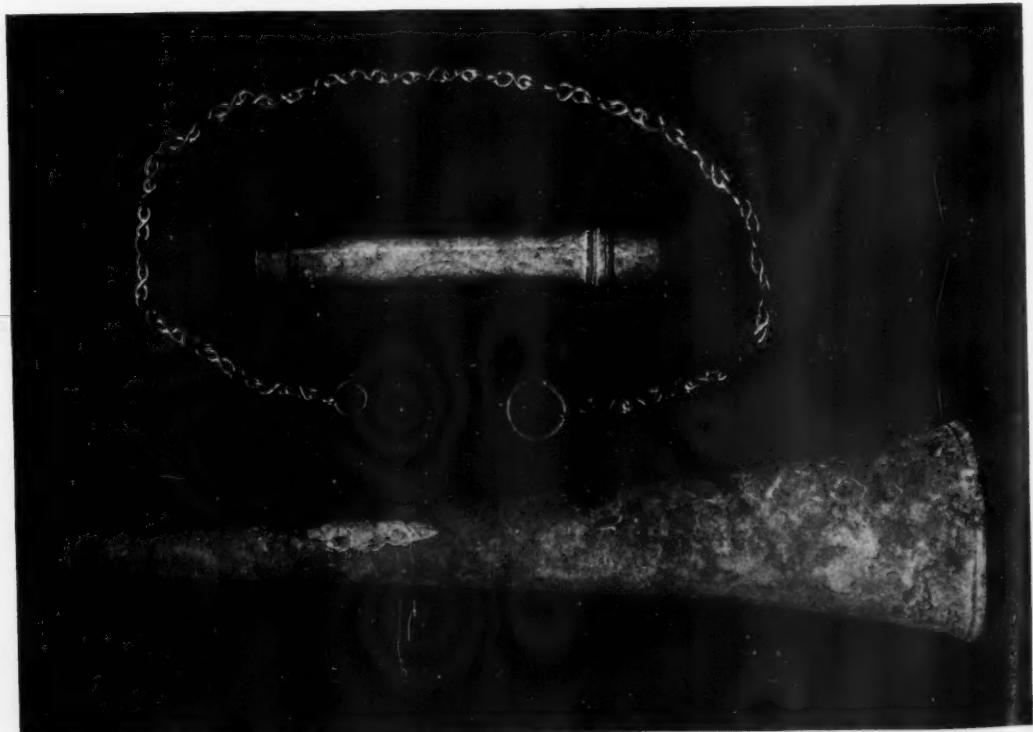


FIG. 5.—GREEK TRUMPET. CHAIN, BELL AND SECTION OF TUBE

fragments of the ivory tubes have been restored in wax. Otherwise the instrument is in remarkably good preservation.

This is apparently the only Greek trumpet known. Its material and its great length show that it is not a military *σάλπιγξ*. In times of peace trumpets were used in religious processions, and also at athletic festivals to announce the events. The games sometimes included contests in trumpet-blowing.¹

The representations of trumpets in the hands of warriors on Attic black-figured and early red-figured vases have "bells" shaped like an actual bell. Because of its



FIG. 6.—ARRETINE PUNCH-EON. GIRL DANCING



FIG. 7.—ARRETINE PUNCH-EON. SATYR MASK

funnel-shaped opening our example is to be dated later than these. But it has a severe beauty which makes one wish to assign it to the second half of the fifth century B.C. rather than to a later period.

3. TWO ARRETINE PUNCHEONS. (1) Girl dancing (Fig. 6). Height, 7.2 cm. (2) Satyr mask (Fig. 7). Height, 4.4 cm.

4. ROMAN TOMB RELIEF, with portraits of three members of the family of the Gessii (Figs. 8, 9). Marble. Length, 2.045 m.; height, 0.65 m.; thickness, 0.34 m. *Bulletin of the Museum of Fine Arts*, 1937, p. 21. Poulsen, *Probleme der römischen Ikonographie*, 1937, p. 23, No. 7, Figs. 52, 53.

The old man in the centre, Publius Gessius (Fig. 10), son of Publius, of the Romilian tribe, had evidently served in the wars of the last century of the Republic. He wears a tunic, a leather cuirass, a sword-belt, and a cloak hanging over his left shoulder and forearm; his left hand, with a ring on the ring-finger, grasps an object of irregular shape, parts of which have been broken off—perhaps a sword-hilt, as Poulsen suggests. The matronly woman, Gessia Fausta (Fig. 11), freedwoman of Publius, and the young man, Publius Gessius Primus (Fig. 12), freedman of Publius, were his slaves, whom he had manumitted. But a more intimate relationship may

¹ For the evidence cf. Théodore Reinach's article, "Tuba," in Daremberg-Saglio, *Dictionnaire des Antiquités*.



FIG. 8.—TOMB RELIEF OF THE GESSI



FIG. 9.—TOMB RELIEF OF THE GESSI. THREE-QUARTER VIEW



FIG. 10.—TOMB RELIEF OF THE GESSII. DETAIL OF GESSIUS

FIG. 12.—DETAIL OF PRIMUS



FIG. 11.—DETAIL OF FAUSTA



plausibly be inferred from the association of their portraits with his, and especially from the inscriptions on either side of the niche. The one at the left reads: *Ex testam (ento) P. Gessi P. L. Primi*, "From the testament of Primus"; the one at the right: *Arbit[ratu] Gessiae P. L.] Fausta[e]*, "Under the direction of Fausta." Funerary inscriptions show that middle-class Romans often married their freed slaves. Fausta was thus probably the wife, as well as the freedwoman, of the old soldier, and Primus may have been their son, born before his mother had been freed. A certain resemblance between mother and son is perhaps to be seen in the prominent cheek-bones and projecting upper jaw, though these features are much more strongly marked in the emaciated countenance of the young man. After the premature death of Primus the tomb was built from funds provided in his will, and under the supervision of Fausta, the surviving member of the trio.

The relief is one of the earliest and best of the surviving monuments of its kind. Fausta's hair is dressed in the "nodus" style, which Ovid recommends for round faces (*Ars Amatoria*, III, 139). This coiffure remained in vogue throughout the reign of Augustus. Its first dated occurrence is on coins of Fulvia (43–40 B.C.); but it may have originated a good deal earlier. In his study of a group of early Roman male portraits with hair arranged in a series of tufts, like a sheep's fleece, Poulsen finds that the hair of Primus resembles closely that of a bronze bust in the Metropolitan Museum, New York, which he dates about 70 B.C. The tomb of the Gessii may therefore have been executed some years before the middle of the first century B.C.

Two details which do not show clearly in the photographs are worth mentioning: (1) The irises of the eyes are bordered by incised circles and rise with slightly increased convexity from the surrounding portions of the eyeballs. (2) Small iron pins are set in the background on either side of each head, just under the projecting top of the niche. These may have served for the attachment of wreaths.

L. D. CASKEY

MUSEUM OF FINE ARTS
BOSTON

A GREEK BRONZE HYDRIA IN THE METROPOLITAN MUSEUM

THE Metropolitan Museum of Art has lately acquired an outstanding example of Greek metalware—a bronze hydria of beautiful proportions, with richly decorated handles, foot, and mouth¹ (Figs. 1–4). The preservation is exceptional. The only restoration is the filling up of a few holes near one of the side handles; there are some rust stains and corroded places; and a few bits of silver inlay are missing. A crusty blue-green patina now partly obscures the original golden color of the bronze. On the upper side of the mouth is a punctured “whirl”—a circle divided in three by radial arcs—perhaps a maker’s mark.²

The shape of the hydria is that prevalent in the last quarter of the fifth century B.C., perhaps preceding the hydria of Meidias by some years. The body is almost as broad as it is high, forming a rich, full curve, and the neck is rather short, whereas in the hydria by Meidias body and neck are slightly more elongated, resembling more nearly the form current in the fourth century.³

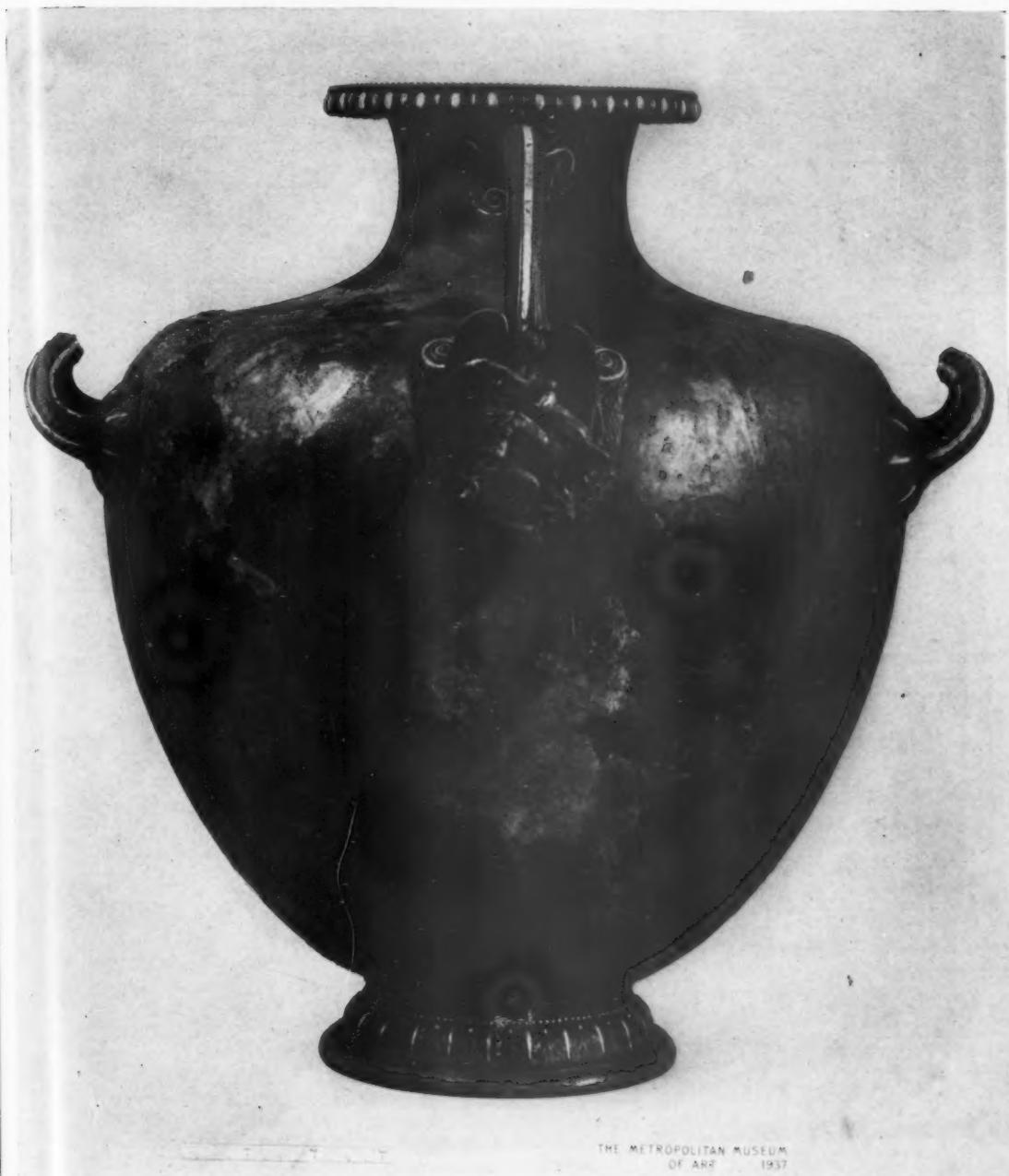
Great attraction is added by the ornaments. In contrast to the vessel itself—which is hammered and quite plain—the handles and foot are cast and profusely decorated with reliefs and silver inlay. It is worth while to examine them in detail, for they are typically Greek, forming a composition with variations on a central theme. The horizontal handles (Fig. 2) are ridged on their upper surfaces and every second band between the ridges is overlaid with silver; each attachment is shaped like a Lesbian cyma decorated with five-petalled palmettes alternating with leaves of which each midrib is silvered; and at the juncture of attachment and handle is a beaded collar. The foot (Fig. 3) is similarly decorated, but here the palmettes have only three leaves and the beads are silvered; moreover additional, silvered beads are placed as further accents between the leaves. Beading appears again along the edge of the mouth, here surmounting an egg-and-dart ornament, of which the eggs are alternately wholly silvered or provided merely with a silver midrib; the eggs are all the same width, except just above the vertical handle where a narrower egg, with a silver midrib, was inserted to fill the given space.

The most lavish decoration is reserved for the vertical handle, which forms, so to speak, the climax of the composition (Fig. 4). The handle proper is ribbed like the horizontal handles, but the intervening bands, instead of stopping short at the attachments, extend to them and form spirited designs of silvered scrolls and plain palmettes. On the lower attachment these scrolls are continued in very low relief and without silver inlay to act as a delicate, subdued frame for the sculptured group, which rises like a flower from a bed of acanthus leaves.⁴

¹ Acc. no. 37.11.6. *B. Metr. Mus.* XXXII, 1937, pp. 255 ff. Ht. 16½ in. (41.6 cm.); width with handles 15½ in. (39.4 cm.); width of body 13¼ in. (33.7 cm.). The handles were soldered, not riveted, to the vessel. Here and there, especially under the vertical handle, is visible the impress of a cloth, presumably laid round it at burial. ² Cf. drawing in *B. Metr. Mus.* XXXII, 1937, p. 256.

³ The progressive elongation of neck and body may be observed in the hydria F90 in the British Museum, dated in the early fourth century, and the hydria 06.1021.184 in the Metropolitan Museum, dated about 370–350 B.C.

⁴ The group was cast—with the greater part of the surrounding border—in a separate piece from the rest of the handle.



THE METROPOLITAN MUSEUM
OF ART 1937

FIG. 1.—A GREEK BRONZE HYDRIA IN THE METROPOLITAN MUSEUM, NEW YORK

(Courtesy of the Metropolitan Museum of Art)



THE METROPOLITAN MUSEUM
OF ARTS 1937

FIG. 2.—A GREEK BRONZE HYDRIA IN THE METROPOLITAN MUSEUM, NEW YORK
(Courtesy of the Metropolitan Museum of Art)

The subject of the group is a winged female figure seizing a deer.¹ She has jumped on the back of the animal, has placed her left arm firmly round its neck, and with the right hand grasps one of its antlers. She wears a sleeved chiton and over it a himation, bunched round the waist and covering the lower part of her body; also a silver spiral bracelet on each forearm; her hair is tied in a chignon at the top of the head.

Since there is no knife or other weapon, the scene is presumably not sacrificial, and the winged figure therefore not Nike but probably Artemis. To Artemis all animals, wild and tame—and particularly the deer—are sacred. She is not only a huntress but a lover and protector of animals.² A winged Artemis is a familiar conception in early archaic art when as "the lady of beasts" she is regularly represented with wings. The conception survived into the fifth century, as the winged Artemis caressing a fawn on an oinochoe in Paris by the Dutuit Painter,³ and accompanied by a deer on



FIG. 3.—DETAIL OF FIG. 1

Melian reliefs,⁴ sufficiently shows. Artemis with one knee on the back of a deer appears on coins of the Tauric Chersonese,⁵ Hierokaisareia (Lydia),⁶ and Kastabala (Cilicia),⁷ as well as on rock sculptures in Thrace.⁸ On the coins of the Tauric Chersonese and perhaps on those of Cilicia she has a spear in her hand; in the others she

¹ The general attitude—one knee on the back of the animal, the hands grasping antler and neck—is not unlike that of Herakles bringing down the Kerynaian deer on the metope from Olympia (as Rhys Carpenter was the first to point out to me).

² Cf. Wernicke in Pauly-Wissowa, *Real-Encyclopädie* II, s.v. *Artemis*, col. 1344.

³ Beazley, *J.H.S.* XXXIII, 1913, pp. 106 f. He mentions two further examples—a lekythos in Syracuse and an amphora in Leningrad; in the Paris and Syracuse scenes the presence of a bow and quiver makes the identification certain; in the Leningrad picture the attributes are missing.

⁴ Jacobsthal, *Die melischen Reliefs*, pp. 25 ff., nos. 16–18, pl. 9. I owe this reference to the kindness of Dr. Jacobsthal.

⁵ Catalogue of the Greek Coins in the British Museum XXI: *The Tauric Chersonese . . .*, p. 3, no. 7.

⁶ *Ibid.* VII: *Lydia*, p. 102, nos. 3–4.

⁷ Imhoof-Blumer, *Monnaies grecques*, p. 354, pl. H, no. 7 (both E. T. Newell and E. S. G. Robinson think a spear was intended in the Cilician coins); Théodore Reinach, *Trois royaumes de l'Asie Mineure*, pp. 71 f., doubts that these coins are Cilician.

⁸ Heuzey and Daumet, *Mission archéologique de Macédoine*, pl. IV. For a list of representations of Artemis riding on the deer cf. Zahn, *Amtliche Berichte* XXXVIII, 1916–1917, col. 303, note 2. The fine relief of Artemis in a striding pose, holding the deer's antler with one hand and lifting a spear in the other (Bieber, *Ath. Mitt.* XXXV, 1910, pp. 9 ff., pl. II and *Skulpturen und Bronzen* in Cassel, no. 74, p. 36, pl. XXXII) is not far removed in date from our group.

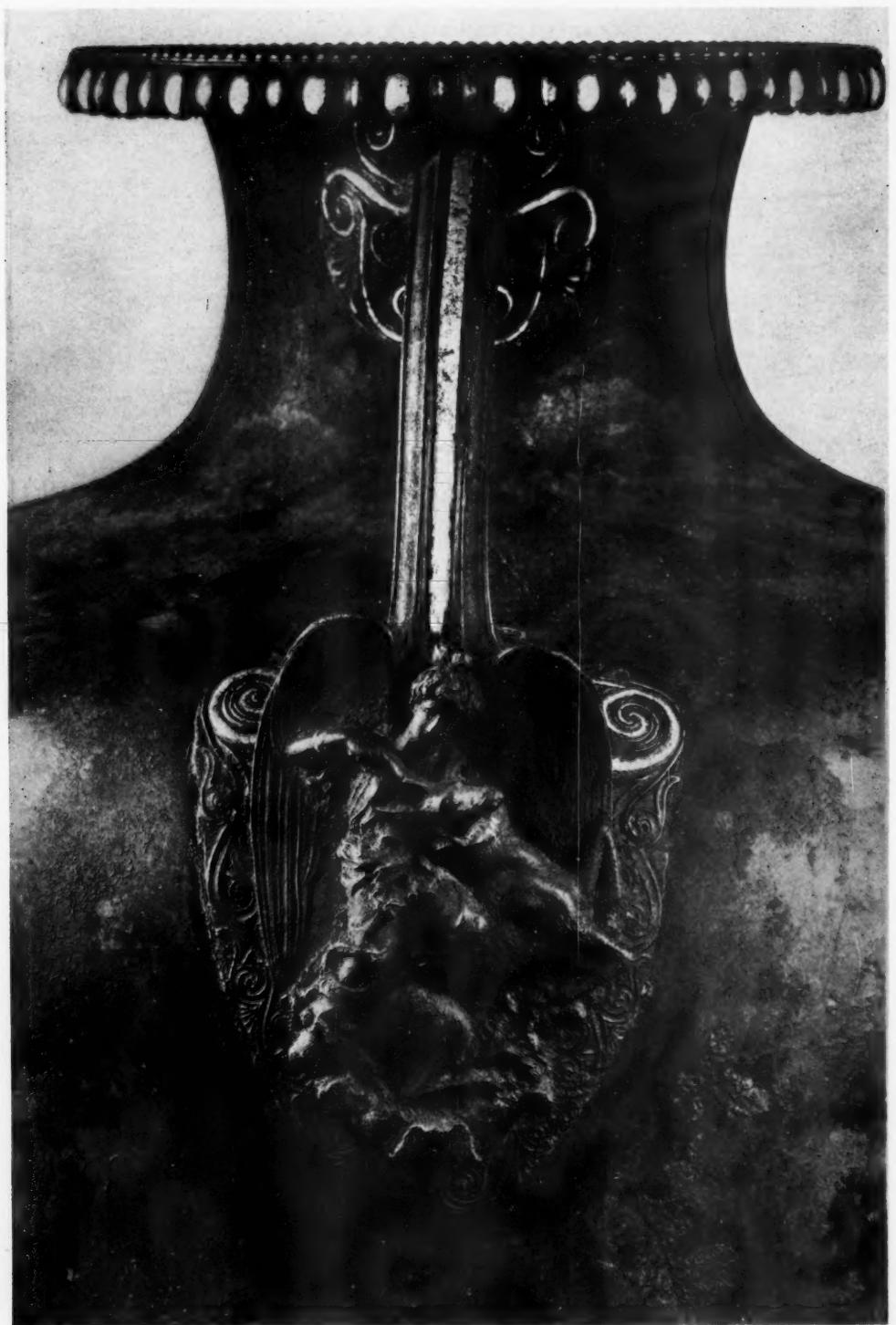


FIG. 4.—DETAIL OF FIG. 1

(Courtesy of the Metropolitan Museum of Art)

seems not to be wielding any weapon, approximating thereby the representation on the hydria. The long Ionic chiton with himation—which is the costume of the New York figure—is that commonly worn by Artemis in the fifth century.¹ The wings would enable her to overtake the fleet deer without killing it.

The relief is executed with great delicacy and finish. We may note the tiny incised lines—now mostly obliterated by the patina—which indicate the feathers of the wings and the coat of the deer.² The handling of depth is singularly able and full of color, parts of the figures, for instance both heads and the right foot of Artemis, standing out in the round.

The style of the relief is that of the Nike balustrade. The delicacy of the work, the clinging folds of the chiton, the lively designs of the bunched mantle, the features, the coiffure,³ the sense of movement in the composition, all point to that period. That is the time indicated, as we have seen, also by the shape of the vase—and, we may add, by the steep profile of the cyma mouldings⁴ on foot and handles, for on the later hydriai⁵ the profile is flatter, that is, the depth is greater in relation to the height.

Whereas quite a number of fine bronze vases of the sixth and first half of the fifth century have survived, and fourth-century examples are not infrequent, few outstanding specimens of the Pheidian and immediately succeeding periods have been preserved.⁶ The New York hydria is perhaps the best extant example.

Originally, of course, the supply of bronze vases of all periods must have been plentiful, but the material being valuable, few bronzes of large dimensions have escaped the melting-pot. The evidence shows that besides being employed in ordinary life as containers of water and other liquids, hydriai served as cult objects, dedicatory offerings, cinerary urns, ballot boxes, and especially as prizes.⁷ Bronze—as well as silver and gold hydriai are often mentioned in temple inventories.⁸ As we do not know where the New York example was found and it has no inscription, we cannot say what its original purpose was. Its good preservation suggests that it was buried in a tomb.

The question of where the New York hydria was made can also not be answered with certainty. All we know of its history is that the Metropolitan Museum ac-

¹ Wernicke, *op. cit.*, col. 1416.

² As the coat is not dappled and the horns are narrow it is clear that the red deer, which was indigenous in Greece, not the Asiatic fallow deer, is here intended; cf. Keller, *Thiere des classischen Alterthums*, pp. 72–101.

³ The chignon at the top of the head is a favorite mode on Meidian vases; cf. also the bronze head found in the excavations of the Athenian Agora (Shear, *Hesperia* II, 1933, pp. 519 ff.).

⁴ Cf. Weickert, *Das lesbische Kymation*, p. 30; Shoe, *Profiles of Greek Mouldings*, pls. XV–XVI and *passim*.

⁵ Cf. e.g. those in the British Museum (from Chalke, near Rhodes), Walters, *Select Bronzes*, pl. 35, and in Istanbul (from Apollonia), Devambez, *Grands Bronzes du Musée de Stamboul*, pp. 57 ff., pls. XV–XVIII; also the separate feet and handles in Berlin (from Amisos), Wiegand in *Anatolian Studies presented to Sir William Mitchell Ramsay*, pp. 405 ff., pls. XII, XIII; and in Munich, no. Br. 3626 (bought in Athens, so probably from Greece, as Dr. Diepolder kindly informs me), unpublished, with silver inlay similar to ours.

⁶ For a good survey of extant bronze vases of different periods cf. Lamb, *Greek and Roman Bronzes*, pp. 133 ff., 162 ff., 182 ff.

⁷ Fölzer, *Die Hydria*, pp. 4 ff.; Richter-Milne, *Shapes and Names of Athenian Vases*, pp. 11 f.

⁸ Fölzer, *op. cit.*, pp. 17 ff.

quired it from a collector in Paris (where it had been for a number of years) and that it is said to have come originally from Greece. Various places have been claimed for the production of Greek bronze vessels—Euboea, Rhodes, Argos, Corinth, Tarentum.¹ The probability is that there were many centres, each with its own output; for one of the great attractions of Hellenic life was the wide distribution of artistic genius—as the many distinguished coinages of Greece abundantly show. The close relation in style between the sculptured group on our hydria and Athenian reliefs of the late fifth century makes an Attic workmanship for our jar at least possible.

GISELA M. A. RICHTER

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NEW YORK

¹ Cf. on this subject especially Neugebauer, *Röm. Mitt.* XXXVIII-XXXIX, 1923-1924, pp. 341 ff.; Lamb, *op. cit.*, pp. 133, 164, 184.

EXCAVATIONS AT CORINTH, 1936-37

PLATES XI-XVIII

In continuation of the steady efforts of recent years to complete the excavation of the main area of the Agora of ancient Corinth, two campaigns were undertaken during the past academic year, one of eight weeks in the Fall of 1936,¹ and the other of nineteen weeks in the Spring of 1937.² The greatest technical problem involved was the removal of the long stretch of earth occupied by a modern road which wound diagonally across the Agora from the southwest to the northeast corners. Difficulties of expropriation prevented the cutting of this road until the beginning of the Spring campaign, so that the main objective in the Fall was the clearing of about one-half the remaining area of the South Stoa, and the completion of the excavation in the cryptoparticus of the South Basilica. At the same time some work was done in the south-central part of the Agora and along the broad projecting scarp south of the Church of St. John Theologus.

In the previous campaign,³ shop XX of the South Stoa and its store-room, situated just west of the Senate House, had been cleared. The Roman rebuilders had extended the store-room somewhat more than 3 m. to the south, and in this extension, amid the thick burned deposit overlying the floor, were found two inscriptions, one of which was standing upright against the east wall.⁴ Nearby, lying face-up in the débris, was a head of Serapis of careful second century A.D. workmanship (Fig. 1). The upper right portion of the face and the nose had split off and were found with their finished surfaces down. These fragments preserved the brilliant coloring of the eye and the gold leaf which was laid on both hair and face, and which had largely disappeared from the main mass of the head. This sculpture apparently formed part of an acrolithic figure, or herm, for no trace of the rest of the composition is preserved. Furthermore, the tooling of the stump below the neck is peculiarly flat, suggesting a wood-carver's technique; and the marks of burning, which are heavy on the finished edges below the neck and on the upper part of the stump, do not appear lower down.

Shop XXI and its store-room had not been altered by Roman occupation, but a

¹ The areas of the Fall excavations were supervised as follows: Professor Broneer, the South Stoa and the exploratory trench south of Oakley House; Mr. Robert Scranton, School Fellow, the area South of St. John's; the author, the South Basilica and the Agora South Centre.

² In the Spring campaign, Mr. Scranton continued in charge of the area south of St. John's and of the demolition and excavation of the Church itself; Dr. Saul Weinberg, School Fellow, supervised the Agora Northeast area for the first thirteen weeks and was then replaced by Miss Doreen Canaday, to allow him to take charge of the work on Temple Hill. Miss Mary Campbell took over the work in the Agora South Centre for the last two weeks of the campaign. Inventories of pottery and miscellaneous finds were kept by Miss Campbell, Miss Canaday, Miss Margaret MacVeagh, and Mrs. Karl Rankin, under the general direction of Dr. G. R. Davidson. Miss Margaret Hill kept the inventories of epigraphy and sculpture. Dr. Katherine Edwards continued her studies of the coins. Architectural work was done by Dr. Wulf Schaefer.

⁴ These inscriptions, with the other recent epigraphical discoveries, are being studied by Professor Broneer.

small room with a tiled floor was built against the south wall of the store-room, without, however, connecting with it. Under the earthen floor of the store-room was found a great quantity of unbroken lamps.¹ Since they had all been used, their presence cannot indicate that they were sold here; but the rooms were perhaps used as a guard-house, or police headquarters, for the Forum.

During the rebuilding of the Stoa, in the first century A.D., the partition walls between shops and store-rooms XXII to XXIV were ripped out and the south wall rebuilt nearly 4 m. south of its original position. This space then became a single large room about 14 m. square, paved with thin slabs of white marble, and with

lavish interior revetment (Pl. XI, 1). A long seat, now missing, ran along the central part of the south wall. The roofing of so large an area without interior supports can only have been accomplished by heavy trusses; and, to provide adequate support for these, the builders made use of some of the "L" shaped blocks from the demolished shops in the structure of the south wall, thus supplying two firm, buttress-like exterior piers, bonded into the relatively thin wall of the building.

A small light well (Pl. XI, 2), projecting into the room from the west wall, does not open into it, but connects with the unexcavated room adjoining it on the west. It is veneered with marble and granite slabs, divided by narrow mouldings. On the floor were numerous fragments of a large pane of glass, evidently from a skylight. Although partly destroyed by mediaeval constructions, it is still preserved to a height of nearly a metre and a half on the northern and southern sides.

The region south of the Roman buildings in the South Stoa and west of the South Basilica was found to be occupied by small houses of the Late Roman-Early Christian period. Since remains of

this period are scarce in Corinth, a deposit of glassware and pottery in one of these rooms is of some importance (Fig. 2). The vases are distinctly Roman in fabric, but the shape of one plate on a high foot is a distinct forecast of a form common in Byzantine pottery of the ninth and tenth centuries. Numerous coins of the fourth and fifth century A.D. were found with the deposit.

The southwest corner of the cryptoparticus of the South Basilica was completely cleared (Pl. XII, 1). Two blocks of the sixth course of the outer wall, with cuttings for the beams of the main floor, were found *in situ*, and the walls, in general, are very well preserved. Standing against the west wall is one of the pilasters, the bases of which have been found at irregular intervals along the south and west walls. Since neither this pilaster nor any of the bases is properly bonded into the walls,



FIG. 1.—HEAD OF SERAPIS

¹ All the lamps were of type XVI.

it seems likely that they represent later repairs, probably undertaken, but not completed, after the building had been damaged by an earthquake.¹

Intermittent work in the area south of St. John's resulted in the clearing of a number of mediaeval domestic structures of various dates. Under the earthen floor of one of the later rooms was found a small earthenware jug containing a solid mass of corroded coins (Fig. 3). Separated and cleaned, they numbered 1607 in all, the greater



FIG. 2.—POTTERY FROM A DEPOSIT OF THE FIFTH CENTURY A.D.

part of the hoard consisting of Venetian colonial coins of the fifteenth century, with a few specimens of earlier date. A second large hoard of approximately 500 coins of the twelfth century was found nearby. In the lowest Byzantine walls, bedding directly on the Roman pavement or cutting through it, were numerous wall and entablature blocks from the small temples fronting the West Terrace, and an unusual, large statue-base of blue Eleusinian stone. On its upper surface are cuttings

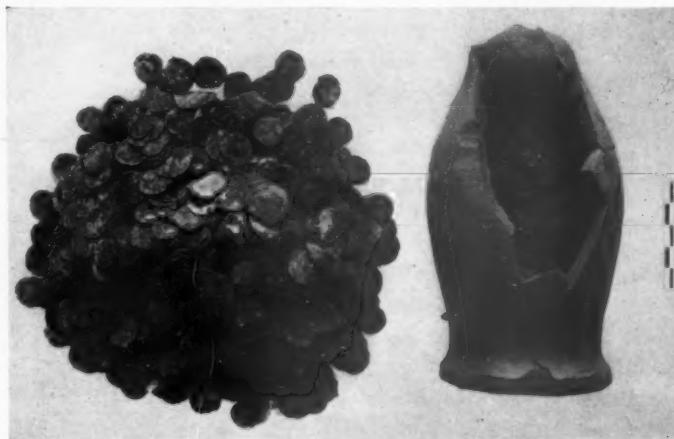


FIG. 3.—HOARD OF VENETIAN COLONIAL COINS

for the feet of two figures, each standing with the right foot firmly planted, the left drawn back and resting on the ball of the foot, parallel to the right heel. The figures stood side by side, but faced in opposite directions. Probably they represented dancers; and since the ends of the base have been hacked away, it is likely that the original group comprised several figures similarly posed.

¹ Mr. Gorham P. Stevens, whose visits to the excavations have proved most helpful to the staff, has kindly furnished this interpretation.

The Church of St. John was purchased in April and the demolition of the building and the excavation of the area were undertaken immediately. The simple, single-aisled building, with side arcades and broken vaults, dated from the Turkish period. This structure, however, represented a rebuilding of the central part of a much earlier church, erected in the tenth or eleventh century, with three aisles and a narthex. Fragments representing portions of saints from the frescoes of this earlier building were recovered from the walls of the later one, while the tenth century foundations yielded numerous building blocks from the small temples, fragmentary inscriptions, pieces of columns from the Babbius monument, and several sculptures.

Of the sculptures, one is a life-size copy of a fifth century Athena type, lacking the head and most of the arms. The goddess stands with upraised left arm, the right arm

held forward from the elbow. The drapery and aegis are of very satisfactory workmanship, dating from the first century A.D. More unusual are two male torsos, one of which (Fig. 4) is shown wearing the chiton draped over the left shoulder. Somewhat over life-size,¹ the modelling of the nude is derived from the Pergamene style, with its full, puffy, musculature; but the sculptor, for all his technical adroitness, is inclined toward a too free rendering of nature, and the bulging rib-and-muscle structure on the sides is more effective as decoration than as sound representation of anatomy.² The peculiar flatness and regularity of the folds of the drapery are most unusual, as is the high polish which characterizes the flesh parts of both torsos. The originality of style points to a Corinthian origin, and a tentative date toward the end of the first century B.C. is possible, though the complex character of the figures calls for further study.

The complete excavation of the area exposed the eastern face of the foundation of the Babbius mon-

FIG. 4.—MARBLE TORSO FROM ST. JOHN'S

ument (Pl. XII, 2).³ No traces of the marble revetment remained, but the monument abutted on a long, low poros step, which seems to have run completely across the western end of the north part of the Agora. This step is certainly earlier in date than the marble pavement of the Market Place,⁴ and may have formed the lowest member of a flight of steps that bounded the west end of the Hellenistic Agora.

The Agora South Central area (Pl. XIII, 1, 2) was dug intermittently during the Fall and Spring campaigns, the excavation continuing westward from the large Roman foundation, now identified as the Bema (Pl. XIII, 1, a),⁵ which was found in the Spring campaign of 1936. Against the northern part of the west wall of the Bema

¹ The fragment measures about a metre in height.

² One is inevitably reminded of Cellini's scathing criticism of Bandinelli's Hercules and Cacus.

³ The greater part of the foundation was cleared in the Spring of 1935. Cf. Stillwell, *A.J.A.* XL, 1936, pp. 25, 27.

⁴ For the date of this pavement, cf. *A.J.A.* XL, 1936, p. 467.

⁵ Cf. Broneer in *'Αρχ. Εφ.*, 1937.



foundations were found the two lower steps of an original flight of three marble steps, which originally skirted the whole northern half of the building (Pl. XIII, 1). The waiting room and staircase found to the east of the Bema are duplicated on the west with very slight differences. The West Waiting Room (Pl. XIII, 1, b) is a metre longer than its counterpart, and its floor of marble chips has a slightly different design. The West Staircase (Pl. XIII, 1, c) makes no provision for draining off the water which must have flowed down it in liberal quantities during every rainfall, unless one may interpret a small pithos sunk below the marble floor in the southeast corner of the passage as a catch-pocket for rain water, an office which it seems too insignificant to fill. The lowest marble step, and a part of the second, are preserved *in situ*, demonstrating that the limestone steps of the East Staircase are Mediaeval replacements.

Beyond the West Staircase the row of small Roman shops continues, similar in size and construction to those east of the Bema (Pl. XIII, 1, d). The walls of the four, cleared during the Spring campaign, are poorly preserved, though numerous cornice blocks, employed by the late Roman builders as a bedding course for a long wall in front of the shops, seem to have come from the superstructure. Behind the second shop is a thick rectangular mass of *opus incertum*, and remains of a similar feature are to be seen just south of the West Waiting Room (Pl. XIII, 1, e-e). These seem to have no structural relationship to the buildings and probably served as substructures for large monuments.

In the eastern part of the area, between the Central Shops and the South Stoa, stretches of the Greek cobble pavement were preserved, sloping gently toward the north. A considerable portion of this was removed, however, when it was found to cover a number of graves (Pl. XIII, 1, f-f), most of which date from the Late Geometric period.¹ The majority are rectangular shaft graves, beautifully cut into the hard red *stereo*, with covers of single thin slabs of sandstone, though three poros sarcophagi were found. In every instance the burial was in a contracted position, usually oriented N.N.E. by S.S.W.

Some of the graves had been rifled by the builders of the Greek pavement. Others had been disturbed during the Middle Ages, when the large vaulted tombs were constructed west of the Church. About half of the total number was found undisturbed and yielded a rich harvest of pottery and jewelry. Several vases were recovered, of which the finest specimen, and the most interesting, is a tall krater on a high flaring foot (Fig. 5). Measuring half a metre in height, it is in an excellent state of preservation. The shape, though not unique at Corinth,² is unusual, and the vase is of local manufacture. With this vase were found a small krater and a large coarse hydria, in the mouth of which were stacked a clay and a bronze skyphos. In a small niche, scooped out in the south wall of the upper part of the shaft, were the bones of an infant and a small broad-bottomed oinochoë.

A smaller grave ("C" in Pl. XIII, 2) contained the skeleton of a woman. On either side of the skull were spiral earrings of gold wire, and the right hand was decorated with a heavy bronze ring (Fig. 6). The burial shroud had been held in place

¹ A small poros sarcophagus contained vases of the early sixth c.

² For a similar krater from Corinth, cf. Shear, *A.J.A.* XXXIV, 1930, pp. 413, 414, fig. 6.

by two long iron pins, pointing down from the shoulders. These had turned ivory knobs at the top, and the corrosion of the iron had preserved the imprint of the weave of the shroud.¹



FIG. 5.—LATE GEOMETRIC KRATER

type often found in Geometric graves. A second identical spit was found just below the shelf in Grave F, apparently having rolled over the edge soon after the burial had taken place, perhaps because of an earthquake disturbance. That the shelf was constructed for these spits is indicated by the fact that the

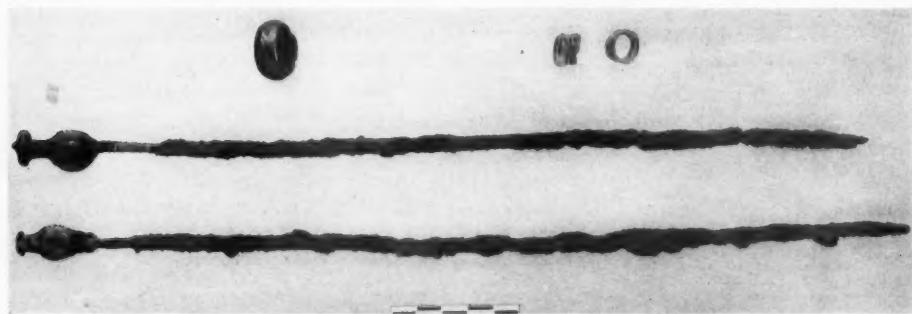


FIG. 6.—EARRINGS, RINGS AND PINS FROM GRAVE C

length and width is just sufficient to contain them. Grave G was rather too small for the cramped skeleton of the man which it contained. A skyphos with

¹ Mrs. H. A. Hill informs me that drapery folds similar to those found on Greek vases and sculpture of the fifth century have been proved by the experiments of Mme. Sikelianos to result from just such a type of weave as that of our shroud.

maeander pattern was over his left shoulder; an iron knife, with wooden hilt, by his right side. Grave F, on the other hand, was much more than ample for the skeleton of the old woman, who was buried with large gold spiral earrings and five rings on her right hand (Fig. 7).¹ The few objects found in graves A and B show that a man occupied the smaller, a woman the larger, grave. Thus it is possible that the bronze spits on the connecting shelf, elaborate forms of common household utensils in themselves, were marriage symbols buried between husband and wife.²

The graves occupy a comparatively narrow area along the western edge of a low plateau of hardpan. Just south of the cemetery area is a curious series of cuttings in stereo, forming an enclosure for an altar (Pls. XIII, 1, g; XIV, 2). The pit is irregularly rectangular, and nearly a metre deep. A broad strip around the upper edge has been smoothed down to form a bed for a built wall. In the centre is a small poros



FIG. 7.—EARRINGS AND RINGS FROM GRAVE F

foundation block for an altar, and in the east wall a niche contains a similar block, perhaps for the cult image. There is no west wall, its place being taken by a series of four rectangular cuttings for the stone foundations of poros columns, the lower part of one being *in situ*. It has sixteen flutes.

A curious feature of the plan is the position of the façade, which is so situated that the entrance through the central intercolumniation over a thick hard layer of plaster admits to the southern part of the pit, at which point one turned and faced northward to the altar. Thus the relative position of the sacrificer and the altar is similar to the orientation of the graves. The image was on the right, facing west; and on the left, behind the preserved fragment of column, some small stones set in hardpan and a raised edge of the paving surface of the entrance indicate the existence of a table for offerings. The approach through the northern intercolumniation was blocked by a wall of small stones.

¹ One ring is of solid gold, one of silver, and three of a gold composition.

² These spits are normally found in pairs, and, because of their use as a medium of commercial exchange, may have symbolized the dowry of the bride.

The level of the tops of the foundations for the columns and the altar shows that the lower part of each of these members projected down below the ground level, which slopes down toward the north, and below the floor of the pit itself. The only possible interpretation of this phenomenon is a symbolical one. Furthermore, the thick layer of ash which overlay the floor of the pit contained the bones of lambs and pigs,¹ animals commonly offered to the underworld divinities.

The pit was constructed during the sixth century, about the time when the cemetery went out of use. The two events may perhaps be connected. Certainly sacrifices continued to be held there for more than a hundred years. In the early fourth century the entire area was converted into a new Agora, the pit was dismantled and



FIG. 8.—GREEK MOSAIC OF THE FIFTH CENTURY

filled, and the cemetery completely forgotten. But the tradition of this worship seems to have persisted in the region into Roman times. Deposits of Hellenistic terracotta figurines relating to a funeral hero cult have been found in various parts of the Agora,² and the orientation of the pit with its entrance at the west suggests a hero cult. Pausanias³ notes an image of Zeus Chthonios in his account of the Agora. The presence of the bones of lambs in the pit makes the association of the cult with this divinity a possibility.

In the fill over the pit, the pavement builders had thrown in parts of a large rectangular floor mosaic (Fig. 8). The scene originally consisted of two griffins devour-

¹ For the identification of these and other animal bones, the staff was fortunate to enjoy the advice of Mr. N. G. Geijvall.

² Cf. Robinson, *A.J.A.* X, 1906, pp. 164 ff. Broneer, *A.J.A.* XXXVII, 1933, pp. 560 ff.; XL, 1936, p. 481. For a new deposit of similar figurines, cf. below, p. 551.

³ II, 7.

ing a horse, but of these figures only the left-hand griffin is well preserved. The drawing is expert and the execution in small beach pebbles is extremely skilful. The figures appear in white on a blue ground in which occasional red pebbles occur. The outer border of tiny pebbles without design is in hundreds of fragments which have not yet been fitted together. The context of the fill is excellent proof that the mosaic cannot date later than the end of the fifth century.¹

Three wells in the same area produced an interesting series of vases (cf. Pl. XIII, 2). The earliest was filled up during the late Protocorinthian period (Fig. 9), and furnishes interesting material for comparison with that found in a nearby well during the Spring campaign of 1936.² A second well, a little to the south, yielded extraordinary quantities of late sixth-century pottery including many interesting Corinthian and Attic Black-Figure pieces (Fig. 10). A third well, cutting into the edge of the shaft containing graves F and G, was fairly packed with pottery of the very late fifth century (Fig. 11). The rather large proportion of red-figured Corinthian imitations of Attic wares is of importance, especially in relation to the pottery from a well of nearly the same date found on the West Terrace of the Agora in 1934.³ The most unusual shape is the funnel, formed like a curved neck of a lekythos, at the left of Figure 11. The bottom is open, with a finished edge. Fragments of two other specimens of the same shape show that it was neither accidental nor unique. An unfinished drain, which cut across the northern limits of graves B and F (Pls. XIII, 2; XIV, 1), was filled up a short time later, while a small cistern to the west of the altar pit (Pl. XIII, 1, h) produced a quantity of vases dating from the second quarter of the fourth century. Apparently the process of converting the area into an Agora occupied a considerable amount of time, but the individually uniform character of the deposits shows that they did not serve continuously as public dumps but were systematically filled in at different times.

Just south of the fourth, fifth, and sixth shops of the central series, at a comparatively high level, a small building dating from the ninth century A.D. was discovered (Pls. XIII, 1, i; XV, 1). Rectangular in plan, it was entered by a narrow vestibule. The corners of the main room were thickened to counteract the thrusts of the arches which occupied the side walls. A rectangular tomb against the east foundation and a few tile graves at the north and west sides indicate that this was a chapel. The construction is excellent, consisting of large cut blocks laid in regular courses, with a thin course of bricks between each course of stone. In the tenth century the floor level was raised and the building underwent a series of changes, but was abandoned soon after. Difficult of explanation is a heavy wall parallel to the north side of the chapel. It has a broad doorway in the centre and short spur walls running toward the corners of the chapel. Its great depth and massive construction, in which mortar was employed, suggests a retaining wall, though it may have been built merely as the foundation for a lateral porch.

The skeleton of a young woman found nearby was adorned with fine early mediæval jewelry, consisting of silver-plated earrings, bead necklaces, and three bronze

¹ A somewhat similar scene is found in a pebble mosaic at Olynthos. Cf. Robinson, *Excavations at Olynthus*, Part V, p. 6, Plates III and 12.

² *A.J.A.* XL, 1936, p. 475.

³ Stillwell, *A.J.A.* XL, 1936, pp. 41, 42, and Pease, *Hesperia* VI, 1937, pp. 257 ff.



FIG. 9.—POTTERY FROM A LATE PROTOCORINTHIAN WELL

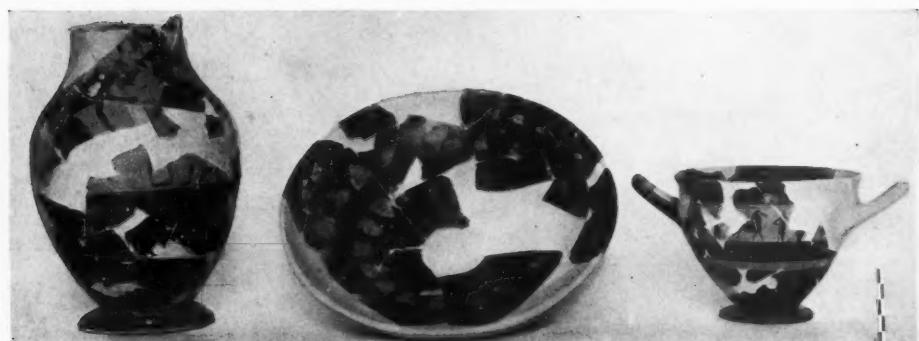


FIG. 10.—POTTERY FROM A SIXTH-CENTURY WELL



FIG. 11.—POTTERY FROM A LATE FIFTH-CENTURY WELL

rings, two of which bear stones set in bezels. The bones of an infant lay over her left shoulder, and the fingers of her right hand were curved about the handle of a small knife. The position of the skeleton and its presence in a thick deposit of ash show that this was no burial, but that the woman was a victim of one of the numerous sacks sustained by the city after the collapse of the Roman Empire.

The courteous assistance of the Archaeological Service of the Greek Government made possible the expropriation of the modern road which wound across the Agora area from the southwest corner of the South Stoa to the northwest corner of the Julian Basilica. The whole eastern end of the road was excavated during the Spring campaign, with the most unexpected results (Pls. XV, 2; XVI). The final clearing of the west corridor of the Julian Basilica revealed that the west wall of the building was of a different construction from the others, being built of thinner blocks on much slighter foundations (Pls. XV, 2, a; XVII, 1, c). It seems probable that it originally supported a retaining wall of the Hellenistic period, bounding the Greek Agora on the east. A narrow road, possibly fronted with an arch, admitted to the northeast corner of the area in both Greek and Roman times.

Mediaeval intrusions had cut through a considerable portion of the Roman pavement of the Agora, and, in cleaning out one of these, at a depth of nearly a metre below the pavement level, a starting line for foot-races was found, 3 m. west of the Julian Basilica and exactly parallel to it (Pls. XV, 2, b; XVII, 1, a). Measuring 17.2 by 1.35 m., it was built of long blocks of poros, set between rubble and plaster and covered with fine stucco. There are cuttings for sixteen contestants, but these differ from the usual starting arrangements seen in ordinary stadia. Here there are two short grooves for each competitor, one set more than half a metre in front of the other and a little to the left. The grooves are V-shaped in section, with a vertical back wall to allow a good grip by the runners' toes and a sloping forward wall to prevent tripping. In the normal Greek foot-race one foot was placed slightly behind the other, but this position is clearly impossible at Corinth. A clue to the starting position is given by a red-figured kotyle, formerly in Naples,¹ which shows a contestant in the armed race, posed in a crouching posture, his feet side by side, and his right arm extended downward with the fingers resting on the ground. Such a pose exactly suits the conditions of the Corinth starting line, except that the left hand must have been placed in the forward groove. This peculiarity perhaps furnishes the clue to the type of race which was run, for in the torch-race the torch was held in the right hand, except at the moment when it was passed on to the next man in the relay. The Scholiast on Pindar² notes that a torch-race formed part of the festival in honor of Athena Hellotis, so that we know such events were held in Corinth. Trial pits to the west have shown that the course run was not an ordinary "straight-away," thus indicating that the race was ceremonial in character.

Against the centre of the west edge of the line are two deep post holes, with a cutting for a brace between them, and another was found ca. 10.5 m. to the west.

¹ Cf. E. N. Gardiner, *Athletics in the Ancient World*, fig. 97. Gardiner considers that the scene represents an unusual starting position.

² *OI.* XIII, 56. For this reference I am indebted to Mr. Frederick N. Householder, Fellow of the School.

Connecting these is a channel of irregular width and depth, cut through the hard *strosis* of the course. It may originally have held a low stone barrier. At either end of the starting line, and somewhat to the west of its long axis, is a complicated series of cuttings, apparently for wooden masts, with a larger object, possibly a stone herm, between. In each case a cutting for a brace connects the outer mast hole with the square socket.

The date of the starting line seems to be the third century B.C. It was buried by late Hellenistic fill, probably washed in during the century following the destruction of the city by the Romans, and was unknown at the time of the Roman colonists. A narrow Roman trench of uncertain purpose cut through the starting line near its northern end and exposed an earlier hard level sloping toward the north and an earlier starting line, apparently of the fourth century (Pls. XV, 2, c; XVII, 1, b). While this has not yet been explored, enough has been uncovered to show that it is made of fine hard stucco painted dark blue, and has a somewhat different orientation from the later one. It is slightly narrower, and the grooves are a trifle longer and nearly 0.10 m. farther apart. Between one pair of these grooves is painted a red symbol, probably the letter H, with one-half of one of the vertical bars missing. This starting line will be investigated during the Fall campaign of 1937.

Some distance to the west of the northern part of the Hellenistic starting line, but not at a right angle to it, are three curious cuttings in the hard *stroseis* (Pls. XV, 2, d; XVII, 2). These are not yet completely cleared. The cuttings are approximately 0.30 to 0.40 m. wide and define circles, the largest of which is ca. 2.60 m. in diameter. They seem too narrow for stone kerbs, but otherwise give no positive indication of their purpose. Whatever stood in them was not removed until the sack by the Romans in 146, but there is no evidence for the date of their construction, beyond the fact that they penetrate to a depth of nearly 0.15 m. into the fourth-century level. They may have been used for setting portable wooden pedestals, connected in some way with the conduct of the races.

Along the southern edge of the area runs an irregularly curved retaining wall, consisting of two courses of poros blocks (Pls. XV, 2, e; XVIII, 1). There is no indication of the existence of a third course. The second course projected over the first and probably had a flat decorative moulding which was cut away in early Roman times when the area to the north had filled up to the top of the lower course, and the upper was used as a step. Describing an even quarter circle on the western side, it flattens out sharply on the east, until, at the southeast termination, it is perfectly straight. This change of shape was due to the necessity of leaving sufficient space for a ramp between the terrace levels. At the south end of the west curve, the line turned at a sharp angle and headed due west for a distance of 4.75 m. The wall was fronted by a strip of cobble pavement nearly 2 m. wide on the western side and tapering to a width of less than 60 cm. at the southeast end. This pavement was bordered, at its outer edge, by a thin strip of poros, set deeply into the earth, and this, in turn, was fronted by medium-sized round stones, spaced at irregular intervals.

The wall was built in the fourth century B.C., and underwent a number of changes in subsequent periods. In the third century, at the time of the building of the later starting line, a small water-channel was cut into its upper surface to carry

water from the southwestern end to the south end of the race-track, whence it runs along the eastern edge of the starting line, then turns again, and, after skirting the northern edge of the Agora, empties into the square basin near the Sacred Spring. A spur channel diverted part of the stream to a draw basin, set against the northwest face of the retaining wall (Pl. XVIII, 1, a), and farther to the east a portion of the wall was removed for the construction of a deep distribution basin, whence the water-channel led off to the southern end of the starting line (Pl. XVIII, 1, b). In this basin was found a deposit of terracotta figurines relating to a hero cult. When the later starting line was built it was discovered that the southernmost competitor must run uncomfortably close to the retaining wall, which was consequently cut back slightly to admit of a freer passage. Somewhat later, the straight section of the wall running west was pivoted back toward the south, lengthened, and converted into a flight of two steps, with three shallower steps forming a central section.

A number of deep circular cuttings at irregular intervals on top of the wall seem to have been made for setting portable wooden grandstands in place. The curved part of the terrace must have afforded a spectacular view of the start, and possibly of the finish, of the races, and such stands for the convenience of spectators are known to have been erected in Greek times.¹

A considerable portion of the Roman pavement was removed to disclose the Greek construction

just described. The deep fill on which it was bedded is certainly of the first century A.D., perhaps not later than the time of Augustus. Many interesting objects of Hellenistic date were found here, including a complete mould for the mask of Medusa (Fig. 12), and a well-preserved female terracotta figurine, 0.40 m. in height, with considerable remains of the pink color and gilt, with which the drapery was adorned. In a mediaeval intrusion was found a small gold earring, with a delicately wrought ram's head at one end, of fourth century B.C. workmanship.

Equally unexpected was the discovery of a Roman monument-base, ca. 2.30 m. in height, near the western edge of the area (Pls. XV, 2, f; XVIII, 2). It is constructed of several courses of poros blocks, surrounded by a marble step, and capped by a large circular marble statue-base, about a third of which was found in place. Another large portion, discovered in the earth nearby, has been restored to its original position. Though eroded by fire and damaged by mediaeval masons, a



FIG. 12.—MOULD OF MASK OF MEDUSA

¹ B.C.H., 1899, pp. 564, 613; Gardiner, *op. cit.*, p. 132.

small portion of the inscription remains on its western face, and other small fragments exist which may eventually make a fairly complete restoration possible.

While the main work of both campaigns centred in the Agora, some investigations in the adjoining territory were made. In the Fall of 1936 a long exploratory trench on the knoll south of Oakley House and west of Temple E disclosed numerous walls of a residential quarter of the fourth and third century B.C. Many interesting small finds were recovered, and the whole area deserves systematic investigation in the future. In the early Spring of 1937 the chance discovery of a vertical rock-cut shaft on the northwest slopes of Penteskouphia led to the exploration of a considerable section of the great aqueduct built by Hadrian to bring water to Corinth from Lake Stymphalos.



FIG. 13.—STEATOPYGOUS FIGURE FROM TEMPLE HILL

ries of six trenches on Temple Hill, four to the south and two to the north of the Temple of Apollo. A great quantity of pottery, chiefly from the early Helladic and Neolithic periods, was discovered, including local wares and importations from Thessaly, Boeotia, and Phokis. With these were various small objects, fragments of obsidian, celts, and figurines (Fig. 13). These are being studied and will be published in a separate preliminary report in *Hesperia*.

CHARLES H. MORGAN, II

AMERICAN SCHOOL OF CLASSICAL STUDIES
AT ATHENS

EXCAVATIONS AT TROY, 1937¹

PLATES XIX-XX

THE excavations at Troy, conducted by the archaeological expedition of the University of Cincinnati, were resumed during the spring and summer of 1937 in a sixth campaign, extending from April 1 to August 6. As noted in preceding reports² the expedition was organized through the initiative of Professor W. T. Semple, Head of the Department of Classics in the University of Cincinnati, and Mrs. Semple, who secured the original concession in 1931 and who have since that time made possible the annual continuation of the enterprise. In presenting this report on the results of our sixth season of labor we take pleasure in recalling our indebtedness to the German Archaeological Institute, which courteously gave up its rights to the site in our favor and which has uniformly supported and encouraged our work. Likewise we still bear in mind our especial obligation to Professor Dörpfeld, whose cordial assistance has been constantly available from the inception of our undertaking and who has taught us much of what we know about Troy. To the particular gratification of all the members of the expedition, Dr. Dörpfeld was again able to spend a few days with us this year and to discuss with us on the spot some of the chief difficulties of the site; and, although our views are not identical on certain chronological details, we are happy to record our essential agreement on all major problems of stratification.

The season of 1937 was devoted to intensive work in and about the acropolis, digging, trenching and soundings being carried out in more than 40 separate places. Everywhere a painstaking effort was made to observe the stratification; all the material brought to light was carefully collected—potsherds, bones, and all other objects—and they were kept separate not only according to the place of finding, but according to their stratigraphic position in the deposit. I mention this in order to

¹ The regular staff of the expedition comprised Professor and Mrs. Semple, John L. Caskey, Lewey T. Lands, Dorothy Rawson, Marion Rawson, Dr. Jerome Sperling, Cedric G. Boulter, and C. W. Blegen, Field Director. Mrs. C. W. Blegen and Mrs. B. H. Hill assisted during the greater part of May and early June; Professor G. Karo participated in our work from May 22 to June 4; and Dr. B. H. Hill collaborated with us from June 18 to July 10. From April 1 to May 7 we had the assistance of a zoologist, N. G. Gejvall, who made a study of the animal bones found in the course of our excavations of previous seasons. Our Commissioner, representing the Turkish Government, was Halil Alyanak, formerly Director of the Museum at Adana. Mr. Lands, our Architect, drew innumerable measured plans and sections in all areas investigated. The many tasks and labors in addition to the supervision of actual excavation were distributed among the members of the staff exactly as in previous years, save that Mr. Boulter took over the inventorying of the sculpture. We thus have the benefit of continuity in the keeping of our records as well as in the direction of digging in the various areas of work. Professor Karo rendered a signal service by drawing up a descriptive catalogue of the numerous figurines and other objects of terracotta of Hellenistic and Roman date, as well as a detailed inventory of the many Mycenaean potsherds found in 1934 in the cemetery of Troy VI and in 1936 in the "earthquake layer" between House VI E and the Sixth City fortification wall. Emin Kâni of Erenköy was our foreman during the season and much is owed to the capable, efficient manner in which he carried out his duties. The number of workmen employed reached a maximum of 103, the great majority being experienced diggers who had served us in many previous campaigns.

² *A.J.A.* xxxvi, 1932, pp. 431 ff.; xxxviii, 1934, pp. 223 ff.; xxxix, 1935, pp. 6 ff.; 550 ff.; xli, 1937, pp. 17 ff.

give some idea of the complexity and the magnitude of the labor accomplished by the members of the staff of the expedition. In this preliminary report many of the minor activities will be passed over, and in summarizing the chief results of our excavations we may deal with our operations in topographical order in eight principal areas.

Mr. Sperling again had charge of our researches along the northern edge of the hill, and under his supervision explorations were carried out in some nine different sectors. In this brief summary it may suffice merely to mention a supplementary cutting in square C 3 (Plate XIX),¹ which permitted some further observations with regard to the western end of the great megaron-like house of Troy I, uncovered in previous campaigns; two small probings in J 3 and K 3, where some structures of Troy VI and later were brought to view; and the removal in H 2-3 of an immense mass of loose earth from Schliemann's excavations, a large task that ultimately exposed a broad area of undisturbed deposit of different periods, which we have not yet examined in detail.

With the object of ascertaining the relation between Troy I and II Mr. Sperling made a careful investigation in the southwestern quarter of square E 3, where he found it possible to recognize a direct stratigraphic connection with the deeper layers of Troy I, which he had been able to differentiate in 1936 in the adjoining square D 3, and to trace in their continuity the succeeding strata. A layer with conspicuous signs of burning, that seems to belong approximately to the end of I, is followed by two others, a very thick one and a thinner one, both of which Mr. Sperling calls "transitional," since it is not yet clear whether they are to be assigned to I or II. Wheel-made pottery begins soon above them. Between this "transitional" deposit and some walls attributed by Professor Dörpfeld to period IIa there appears to be an intermediate layer, which should probably be ascribed to II. If this is correct, the so-called "IIa" walls cannot have been built in the initial phase of II. Relatively little pottery was obtained, and the ceramic sequence of these layers is not yet adequately represented.

A much more extensive excavation was undertaken somewhat farther eastward in F 3. Here our main purpose was to make a fresh test of the early strata of Troy I and to collect as much material and evidence as possible that might help to clarify the history of the site from the later phases of the First Settlement to the middle stages of the Second. Here, too, it was first necessary to remove a vast dump of earth heaped up by Schliemann.

Much of the area was occupied by the surviving portion of a large building called II R on Dörpfeld's plan and indicated as belonging to period IIa. In three places (in the southeastern part of the large room of the house; in an adjoining room on the southeast, beyond a cross-wall; and outside the northeastern wall of the building, beginning at a depth of ca. 6.50 m. below our datum), where undisturbed contemporary deposit was found, the pottery recovered included small quantities of wheel-made ware, and fragments of the same kind occurred also in a thin underlying layer.

¹ This and the following references are to the squares as numbered on Professor Dörpfeld's plan of *Troy: Troja und Ilion*, II, Pl. III (reprinted at end of book in Leaf, *Troy, A Study in Homeric Geography*), which has been simplified in our plan, drawn by Mr. Lands, reproduced in Plate XIX.

Since evidence from other areas has shown that wheel-made pottery was apparently still unknown at the beginning of Troy II, Mr. Sperling concludes that we must revise the dating of House II R and refer it to phase b or c of the Second Settlement, making a corresponding readjustment in the dating of some other walls in the immediate vicinity.

Below these levels lay a deposit, ca. 2 m. deep, composed mainly of clay, the disintegrated material fallen from heavy walls of crude brick. Mr. Sperling uncovered portions of several long rectangular rooms, lying side by side, with massive brick walls ca. 1.65 m. thick and still standing in some places to a height of 2 m. One room had a width of ca. 3.60 m., and it exceeded 7 m. in length, extending beyond the limit of our digging. In the clay walls arranged in two horizontal sets were many fairly large holes, filled with soft earth and remains of carbonized wood (Fig. 1), and similar vestiges of wood appeared here and there about the room. Mr. Sperling infers that the holes were made for the insertion of heavy, transverse beams to support a wooden floor, perhaps with a hollow space underneath for ventilation. A stone pavement came to light some 0.60 m. deeper, but its lack of habitation-débris implied that it was not long, if at all, used as a floor.

Beneath the structure with its thick walls of crude brick were uncovered broad stone foundations of an earlier building of similar dimensions and plan. Like its successor it seems far too huge and massive to have been a private dwelling-house, and it is more likely that both complexes, which Mr. Sperling assigns on ceramic evidence to two phases of the transitional age between Troy I and II, were connected with the fortification wall of the citadel, perhaps constituting a series of magazines for the storage of provisions.

A late stage of Troy I was represented by some rooms of a building constructed with relatively thin stone walls, which came to light below the "magazines." It had been destroyed by a great conflagration and many remnants of charred wood, together with hard-baked, reddened chunks of clay and other burnt débris were found lying on the rough cobblestone pavement of two rooms. Along the walls and covered by rubbish that fell during the fire, lay a heap of carbonized wheat, separated from the wall and from the floor by charred wood, possibly the remains of bins in which the grain had been stored. We have ventured to call the building a granary.

Under the "granary" and to the south of it a pit, dug to native rock at 13.80 m. below our datum, yielded a series of potsherds for the many earlier layers of Troy I, very valuable for comparison with the material from other areas.

Mr. Sperling's work in F 3 has revealed abundant fresh evidence for the essential



FIG. 1.—ROOM WITH WALLS OF BRICK AND STONE PAVEMENT, TRANSITIONAL PHASE, TROY I-II

continuity between Troy I and II, marked by an unbroken ceramic tradition. The common types of pottery of late I are very difficult, and often impossible, to distinguish from those of early II. Sometimes the layers can be differentiated only by means of architectural evidence; but sometimes we are helped by the appearance of an uncommon, rare kind of pottery, very thin, with highly polished and beautiful lustrous red surface, which we have not yet found in late I, but only in the transitional layers and in early II.

In the northeast quarter of F 3 short sections of two fortification walls were disclosed. Both must be attributed to early phases of Troy II, but their relation to other walls of that period cannot yet be determined.



FIG. 2.—FOUNDATIONS OF WALL OF TROY VI

At the northern edge of the hill, mainly in squares G 2-3, and rising some 6 to 7 m. above the level of the Second Settlement just to the south of it, stands a small "island" of undisturbed deposit, which was left untouched by earlier excavators. After clearing the eastern scarp of the "island," against which Schliemann had dumped a great mass of earth from his excavations, Mr. Sperling was able to examine the stratified accumulation covering the northern slope of the hill. High up near the southeast corner of the area the remains of a much damaged, but massive wall were revealed and followed some distance westward across the "island." Built for the most part of irregular, unworked stones, it seems to have been a retaining wall in one of the older phases of the Sixth Settlement, for the deposit accumulated against its north face contained numerous potsherds of types we know to be characteristic of early VI.

At the top of the "island" two later walls were discovered to overlie the more ancient foundation. One is the wall of the great Roman edifice called by Dörpfeld IX W, the builders of which made free use of earlier material, which they must have

found close at hand. The other we think we may safely identify as a fragment of the substructure that supported the fortification wall belonging to the later stages of the Sixth Settlement. It is made of large, roughly squared blocks of hard limestone, similar, though they are not quite so huge in size, to those which may still be seen in place in A 4-5 and along the south side of the citadel. The new section of the wall (Fig. 2), here laid directly upon the older retaining wall, which was itself bedded in a hard layer of Troy V, could be assigned to late VI from the character of the deposit still preserved in a few places along its south face. Although its identity was not recognized, a considerable piece of the wall was actually uncovered long ago and it is clearly shown on Dörpfeld's plan, marked by the elevation point 36.10. Whatever



FIG. 3.—STRATIFIED LAYERS COVERING NORTH SLOPE OF CITADEL

was left of it after Roman times eastward and westward of the "island" must have been demolished by Schliemann.

The long-lacking evidence now recovered by Mr. Sperling, supplemented by that revealed through our explorations in A 3-4 (cf. p. 593), should thus settle once and for all a much disputed question, convincingly verifying Professor Dörpfeld's logical and sound deduction that the fortification wall of Troy VI continued all the way around the north side of the acropolis.

The successive layers making up the deposit on the north slope were clearly visible (Fig. 3) in the east scarp of the "island." Over a fairly large area marked off to be tested the strata were carefully removed, one by one, the total thickness of the accumulation from early VI to Roman times being ca. 5.65 m. According to Mr. Sperling's analysis the superficial layer, 0.40 m. deep, contained numerous marble chips, probably representing the débris from the construction of the Roman building IX W. Next followed a layer from 0.40 to 0.80 m. yielding Hellenistic potsherds. The ensuing deposit, from 0.80 to 1.55 m., was composed of three strata: the uppermost,

which yielded a bronze coin of Alexandria Troas, dating from the beginning of the 3rd century B.C., was full of marble chips; the lowest contained similar chips and fragments of limestone, together with early Hellenistic potsherds and many other fragments representing all periods from Troy II to VIII, while the thin intermediate stratum produced only Hellenistic potsherds. This threefold division gives ground for the suggestion that there may have been a slight interval between the laying of the limestone foundations in their deeply excavated sand-bedded trenches and the erection of the marble superstructure of the Hellenistic Temple of Athena.

The next layer, from 1.55 m. to 1.85 m., produced a good many sherds of the fourth century B.C., a coin of Sigeion of the same period, and a bronze coin issued by Alexander; and some classical and archaic fragments also made their appearance. A thick layer of Troy VIII, rich in pottery, extended from 1.85 m. to 3.25 m. The underlying strata are listed by Mr. Sperling as follows:

- 3.25–4.00 m. = Troy VII and late VI
- 4.00–4.60 m. = Troy VI
- 4.60–5.10 m. = Early VI
- 5.10–5.65 m. = Transitional V–VI.

In the deposit below 5.65 m. the layers no longer have a uniform slope, but seem to have been broken off and damaged by erosion.

Along the dividing line between G and H in squares 3 and 4 the lower courses of the great fortification wall, partially exposed by Schliemann, were cleared. The undisturbed deposit here, covering the outer face of the wall, contained numerous potsherds, but not a single fragment of wheel-made ware. This part of the wall thus appears to have been built in one of the earliest phases of the Second Settlement.

At the conclusion of the campaign of 1936 the "island" in square E 6, in the central part of the acropolis, had been completely excavated: the top of the underlying fortification wall of IIa had been exposed and alongside it, toward the north, bordering the court of the great Megaron, several successive layers belonging to late II had been examined, beneath which deeper soundings had revealed a stone ramp and two substantial walls in association with a deposit apparently dating from the time of Troy I. No proper habitation layers contemporary with the fortification walls of periods IIb and IIa had been recognized, however, and no undisturbed accumulation had yet been found to illustrate in stratified sequence the stages of development by which Troy I passed into Troy II. It was consequently with the hope of being able to fill this gap in our knowledge of the stratification of the site that Miss Marion Rawson in the season of 1937 resumed her work in this central region, which speedily became the scene of widespread activity. For her search, beginning in the immediate neighborhood of E 6, in squares F 4–5 and F 6, soon led to unexpected discoveries that obliged her to extend her operations far to the northeast and the west; and by the end of the campaign she had conducted excavations and soundings in 14 places in a zone stretching from square C 4–5 on the southwest to square G 4 on the northeast, a distance of more than 100 m. In the course of these explorations she was not only able to investigate and study the early strata of Troy II in four different areas, but made a fresh test of the whole stratification in the middle of the site through

periods V, IV, III, II and I, and discovered and traced through almost one-half of its circuit a hitherto unknown imposing fortification wall of Troy I, with a gateway flanked by two massive towers. The following account of the results is abridged from Miss Rawson's comprehensive report.

Within the citadel of Troy II, apart from three small "islands," which were presumably left standing to show the layers of stratification marking his successive "cities," Schliemann had almost everywhere removed the superincumbent deposit and dug into or through the strata of the Second Settlement itself. Miss Rawson succeeded, however, in discovering one small place, where by some good fortune the whole surviving accumulation of Troy II was still preserved untouched, so that its component layers could be carefully examined. This area lay to the eastward of the small Propylaea called II C on Dörpfeld's plan, in squares F 5-6, where a low hummock of earth and stones, some 5 m. long by 3.50 m. broad, still supported the scanty remains of a wall, which, to judge from its level (5.61 m. below the datum we used in E 6), seemed to be a construction of Troy III.

Digging below this mass of stones Miss Rawson found parts of two walls of an earlier building with a pivot stone at -6.26 m., marking a door and a floor on which lay many fragments of pottery. A jar with an incised fern pattern and a small jug were recognized, and among other objects recovered may be mentioned a tiny fragment of gold leaf and a plain whorl of terracotta. Alongside the building ran a street in a northeasterly direction, possibly a continuation of the narrow street found in 1935 in square E 6; the débris filling it contained vast quantities of sherds and bones, coated with the greenish accretion, characteristic of street deposits. This layer at -6.26 m. is evidently to be assigned to the final stage of Troy II.

An antecedent phase was clearly represented in a deeper floor deposit, ranging from 7 or 7.10 m. to 7.20 m. below our datum, with which was also associated a short section of stone wall. The layer contained scattered fragments of slate, like those noted in E 6 in a period later than IIc, and on the floor, under burned earth, lay two large jugs or jars, a flaring bowl, one plain and two incised whorls, a bone idol, two bronze darts or javelin points, a flint knife, and a flake of obsidian.

Underneath the layer characterized by fragments of slate was a thin and almost sterile stratum of earth showing some traces of burning and containing chunks of fallen clay brick and roofing, which rested on a pavement of small pebbles at 7.33 m. below our datum. This pavement was laid up to the walls of the Propylaea and the building north of it and was undoubtedly the floor belonging to these structures; it corresponds to the similar pavement noted by Dörpfeld in the court before the Megaron, some remains of which were likewise found in our excavations in square E 6; and this is clearly the ground level of Dörpfeld's period IIc. Unfortunately the small area uncovered in F 5-6 yielded only a few small indeterminate potsherds, together with a heavy bronze implement, perhaps a chisel.

Beneath the pebble pavement an almost equally sterile stratum of decomposed bricks was encountered, resting on a thin layer of sand at ca. -7.48 m. The latter was perhaps not a real floor, but the deposit seems to antedate the buildings of IIc and can no doubt safely be assigned to IIb. The yield of pottery was too scanty to throw much light on the ceramic history of the period.

Continuing on down through the sand, Miss Rawson next found a layer of sterile brown earth covering a massive cobblestone pavement, which apparently extended eastward and southward up to the IIa fortification wall, sloping downward from ca. 7.50 to 8.12 m. below our datum. Most of the pavement (Fig. 4) consisted of a course of stones laid on a soft filling of earth, but part of it, just to the east of the later Propylaea, proved to be the top of a monumental tower, solidly built in stone construction, flanking a gateway in a great fortification wall, clearly dating from some phase of Troy I. Between the period of use of the wall and the time of construction of the pavement, which may certainly be attributed to IIa, the ground toward the east had risen considerably, perhaps by gradual accumulation; and when the citadel was enlarged and refortified in IIa the top of the earlier tower coincided so nearly with the new ground-level that it could be conveniently utilized as part of the stone pavement.

This pavement obviously marks the earliest level of Troy II, since the fill immediately beneath it had the unmistakable character of unmixed débris of the First Settlement. Unfortunately the IIa layer yielded virtually no remains of pottery or other objects; and thus, although the actual strata could be differentiated, as we have seen, our excavation in F 6 did not adequately fill the gap in our ceramic series for the early phases of Troy II. Before turning to the new fortification wall of Troy I we must refer briefly to the attempts made in three other areas to find these "missing links."

FIG. 4—COBBLESTONE PAVEMENT OF TROY II A IN SQUARE F 5-6

Within the forehall of the great megaron in square E 5 two trenches were dug in order to examine the stratification. Portions of the walls of a smaller megaron, assigned by Dörpfeld to period IIb, were exposed just beneath the IIc level, and toward the south was disclosed a piece of a slightly deeper wall, identified by Dörpfeld as belonging to period IIa; but, though a mass of stones in loose earth might be interpreted as a remnant of a pavement of IIa, proper floor deposits of these two phases were nowhere preserved and our series of pottery of early II could not be completed here.

Immediately beneath the mass of stones, and partly interrupted by it, was a layer of light clayey earth containing sherds of fairly early I. The underlying deposit, which continued some 4 m. to bedrock at 12.17 m. below our datum (or 25.88 m. above sea level), showed at least three successive habitation-layers, rich in pottery, bones, and shells, and each with accompanying stone walls. From one trench alone 14 awls, 2 implements, and a pin of bone; the lower part of an idol, two whorls and many fragments of terracotta; one idol and an amulet of marble; five polishing stones and a flint knife; and two bronze or copper pins and a javelin point of the same metal were recovered. The fragments of pottery have not yet been fully studied,



but they appear to belong to early phases of I. It is thus clear that there was much "telescoping" in this central part of the citadel; in late I the deposit of middle I must have been removed; the débris of late I in turn was cleared away to make room for constructions of IIa; the layer of IIa was, for the most part, displaced by that of IIb; and the latter was badly disturbed when the great buildings of IIc were built.

In the west central region of the acropolis, in squares C 4-5, Miss Rawson carried out another careful test of the stratification. In this area many walls had been exposed by Schliemann, among which Dörpfeld recognized the elements of a large building, which he assigned to his period IIb, since the eastern end of it, at least, had certainly been demolished when the great gateway F M of period IIc was erected. Built over the southwestern part of this building was a complex of walls (shown on Dörpfeld's plan as II C) which could also be attributed to a structure of IIc, and over this in turn was superposed the house called by Schliemann "the House of the City King," in which ten of the famous treasures were found. Schliemann originally ascribed this house to the "Third or Burnt City," but it was subsequently re-assigned to the preceding period; and it is now clear from its similarity to the structures of our final phase of II that it should be dated to the very end of the Second Settlement.

A small space between the northeast corner of the IIb building and the northwest corner of the IIc building had not been disturbed below the IIb floor in previous excavations; our hopes of finding valuable ceramic material here were, however, disappointed, for, as elsewhere, the early layers of Troy II yielded only the scantiest remains. Beneath Dörpfeld's house of IIb, Miss Rawson found two earlier wall complexes. One consisted of a broad wall running from northwest to southeast, together with a piece of a cross wall, both built with large facing stones on each side and smaller stones in the middle. Only a single course was preserved, and it was not possible to recognize an associated floor deposit or even layer. Barely a few centimetres deeper, running from north to south diagonally under the other, another broad wall came to light, with its top at ca. 8 m. below our datum. Consisting of one or two courses, it was built of large stones with a filling of smaller material and the flat top may have been intended to support a superstructure of crude brick. Associated with the wall was a pavement made of small stones, pithos-fragments and potsherds; but the earth covering the pavement was almost sterile. These two wall complexes were clearly successive, not contemporary, and both certainly antedate Dörpfeld's building of period IIb. Since it seemed equally sure that the earlier of the two must be reckoned as belonging to Troy II, it follows that period IIa must have at least two chronological phases in this area.

Directly beneath the earliest Second City wall was a fill of decomposed brick, resting on a layer of curiously variegated earth of a kind characteristic in deposits of Troy I. Continuing still deeper Miss Rawson found ca. 3 m. of successive habitation layers consisting of black ashy earth, containing quantities of potsherds, shells, animal bones and carbonized matter, until at 11.29 m. below our datum further digging was blocked by masses of stones. Many objects of stone, bone, terracotta, bronze or copper, and several complete vases were recovered from these layers, and the numerous potsherds give a useful series for the study of the pottery of Troy I.

As a check on our whole study of the stratification of the central part of the acropolis as represented in E 6, and at the same time with the hope of finding undisturbed deposits of the early phases of Troy II, Miss Rawson undertook this year a careful examination of the "island" left standing by Schliemann in squares F 4-5. It was much smaller than the "island" we have excavated in E 6, and the summit, at 1.53 m. below our E 6 datum, was barely large enough to afford standing room for one man; but since the sloping sides spread out considerably as they descended, the area increased rapidly as we progressed toward the bottom. Only the northerly half of the "island" was excavated, the southern part being allowed to remain as a

permanent exhibit of the stratification (Fig. 5).

The successive layers of deposit were found to agree very closely with those observed and recorded by Miss Rawson in the adjacent area of E 6. The first metre of accumulation, down to ca. 2.50 m. below our E 6 datum, comprised habitation-débris of Troy V, containing characteristic pottery, a millstone, a grinder and remains of a house wall.

Below this level the earth changed, becoming very hard, with débris of fallen brick,



FIG. 5.—STRATIFICATION EXPOSED IN SCARP OF "ISLAND" IN F 4-5

which seemed to mark the end of Troy IV. The remains of the Fourth Settlement extended from ca. 2.50 m. to 4.35 m. below our datum, and two successive building-periods, or phases, could be distinguished. The later of the two was represented by most of one room still enclosed by three stone walls, and small parts of two other rooms, with floors and floor deposits ranging from 3.25 to 3.55 m. below our datum. Considerable remains of burning indicated that this house had been destroyed by fire. Several pots were recovered, more or less nearly complete, together with whorls of terracotta, implements of bone and stone and a millstone. To the earlier phase of the period belonged a narrow street running from east to west and portions of two rooms of different houses, with their floor deposits at ca. 4.15 to 4.30 m. below our datum. The wall on the north side of the street had an interesting architectural feature, its lowest course consisting of a row of orthostates. This layer

yielded a great quantity of pottery, which has not yet been thoroughly studied, four whorls of terracotta, four awls and a pin of bone, a flint knife and a celt.

Troy III was represented by an accumulation ca. 1.85 m. deep, continuing from approximately 4.35 to 6.20 m. below our datum. The architectural remains included a house complex, in which the greater part of one room and corners of three others were preserved, and it was possible to distinguish three successive periods of occupation. With the latest, which had its floor at ca. -4.80 m. to -5.20 m. and was marked by a thin burned layer, was associated an oven in a corner of two walls. A small coarse dish, a bone idol, and some other small objects were found at this level, together with many sherds, bones and shells. The floor of the middle period, which lay at ca. -5.75 to -5.90 m., under a deposit of very hard earth, consisted of ashy earth with carbonized matter, some shells and many groups of sherds, some of which can perhaps be put together to form pots. Vases more or less nearly complete include a small jug, a red-washed bowl, a three-legged jar with incised decoration, a large "depas" and a small red-washed tankard; and there were furthermore three plain whorls, a bone awl, and a bronze or copper pin, the head of which is made of loops of fine wire. The earliest use of the house—presumably at the beginning of Troy III—was marked by a floor deposit at ca. -5.90 to -6.20 m. It yielded many sherds, but no whole pots, one incised and 6 plain whorls, and 3 bone implements.

Directly below this house of the Third Settlement a new complex of walls came to light, comprising parts of four rooms apparently belonging to two houses, separated by a narrow street that ran from west to east for a distance of 3.50 m. and then turned sharply toward the south. The rooms were filled with burned débris and pieces of charred wood, the street with fallen stones, gray earth and carbonized matter; and it was clear that we had reached the level of the final phase of Troy II. The floor deposit was fairly thick, reaching a depth of 6.60 to 6.65 m. below our datum. A considerable number of pots, more or less nearly complete, vast quantities of potsherds, and many objects of bone, stone and terracotta were found in the street and in these rooms; and under a stone against the bottom of the east wall of Room 202 Miss Rawson discovered a small hoard of gold beads and pins (Fig. 6). One beautifully worked pin has a plain shaft surmounted by a disc, then a coil of wire above a hexagonal bead; on either side of the bead is a spiral supported on a flat piece which rests on the shaft.¹ With this were found the shaft of another pin, two pieces of thin gold wire perhaps from the head of a pin, and a curved bit of wire. There were also 252 flat beads of varying sizes, made of two thicknesses of gold leaf pressed together, with a tubular hole for the string,² and 1029 tiny annular beads, formed likewise of two thicknesses or rings pressed together.³ Along with the gold was found also a piece of lead, perhaps the head of a small figurine.

It cannot be without significance that wherever we have examined a real deposit belonging to the final phase of Troy II, gold objects have come to light. From Schliemann's account of the finding of his "treasures" and from the fact that our beads and pin are duplicates of examples in his hoards, it seems fairly certain that most of his gold objects, too, can be dated to the last stage of the Second Settlement. But why so much gold should have been abandoned in the houses of this one period

¹ See Schliemann, *Ilios*, No. 850, p. 489.

² *Ibid.*, pp. 460 f., fig. 712.

³ *Ibid.*, p. 467, fig. 779.

particularly, one can only conjecture. Perhaps the destruction of the settlement in the great conflagration, which has left such manifest traces, was brought about suddenly and with violence, so that many of the inhabitants perished and could not return to recover their hoarded treasures.

In F 4-5, as elsewhere, the earlier layers of the Second City proved very elusive, difficult to identify when found, and disappointingly bare of characteristic pottery and other objects. By patient study Miss Rawson was, however, able to differentiate a good many successive levels, although some lacked architectural elements, and where the latter were still present in others, associated floor-deposits could not be recognized.

A change of earth at 7.00 m. below our datum, apparently marked a floor that

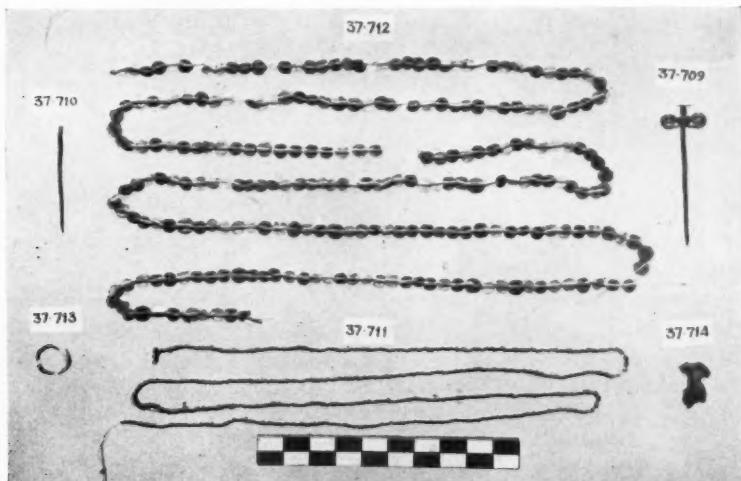


FIG. 6.—GOLD OBJECTS RECOVERED IN LATEST LAYER OF TROY II, IN F 4-5

can be referred to the penultimate stage of the Second Settlement. In this layer, underneath a wall of the subsequent phase, was found the skeleton of a child, some ten years of age, or younger, with very thin and fragile bones and a badly crushed skull. The child had been buried on its right side in a contracted position and there were no accompanying objects.

The next layer, the third from the end of II in Area F 4-5, belongs to what may be called the "pit-period," for in this small area were revealed no fewer than four "bothroi," similar to those found in E 6 and elsewhere. The pits were irregular in shape and of various sizes, but each contained a filling of soft ashy earth, with great quantities of potsherds. The floor with which these holes seemed to be associated sloped downward to the north to ca. 7.20 m. below our datum at the edge of the hill and was covered with a deposit of the same kind as that filling the pits. Only a single fragment of a wall had survived from this period. Pit 1 yielded a coarse basin, a flaring bowl, two bronze or copper pins, and a bone idol; Pit 2 a one-handled bowl and a bone idol; Pit 3 two flaring bowls; and Pit 4 five flaring bowls, a lid with high

handle, a face-pot lid (the only one we have yet found in a Second City layer), one incised and two plain whorls, a bone pin and a polishing stone. The sherds from the pits, which have not yet been worked over, may allow further pots to be put together.

Another change of earth at 7.45 m. below our datum presumably indicated the next floor-level. It seemed to be related to a broad, well-built wall, which ran parallel to, and was no doubt contemporary with, a similar wall uncovered by Schliemann somewhat farther westward, which Dörpfeld has assigned to period IIc. Unfortunately there was no real floor-deposit.

Running under these walls of IIc in a direction from northeast to southwest was a wall of period IIb, likewise shown on Dörpfeld's plan, just north of our "island." The top of this wall is at 7.26 m. and the bottom at 7.91 m. below our datum; but the floor once associated with the structure has disappeared, perhaps having been destroyed by the builders of the IIc walls.

On Dörpfeld's plan two walls of period IIa are projected so as to meet and form the corner of a building under our "island." We uncovered the actual corner and cleared the walls for some distance. They are solidly built and were coated with plaster, and one of them has its two lower courses projecting so as to form a bench or a shelf along the base of the wall. The well-marked floor of the building varies from 7.87 m. to ca. 8.20 m. below our datum; part of it still has a coating of plaster which is discolored, showing the marks of burning beams. Thin broad strips of charred wood lay on the floor, and above was a loose fill of burned earth, chunks of clay and charcoal, constituting clear evidence that the building was destroyed by fire. Although we excavated a fairly large area, the floor deposit produced only a few small indeterminate sherds and gave little information about the pottery of the period.

The most remarkable feature of the building was a peculiar hole in the floor, fairly regular in shape and neatly cut. It had a diameter of 0.50 m. and a depth of 2.81 m. The hole was filled with the same loose deposit of burned earth, brick and charred matter, that lay on the floor, and near the bottom were great chunks of carbonized wood, some thick and heavy, like pieces of tree trunk, some thin and flat like fragments of board, while many unburned pieces of reddish bark were pressed against the side of the shaft. Throughout the entire depth of the hole the earthen sides were unmistakably burned and the effect of the fire had penetrated to a considerable depth. At the bottom of the pit, 11 m. below our datum, were large flat stones. The purpose of this shaft has not yet been ascertained, nor can we understand how in a hole so narrow and deep fire could be induced to burn sufficiently to bake the walls so thoroughly. One thing, at any rate, is clear, namely that the pit was used during the occupation of the building in period IIa.

A trench was dug through the IIa floor, and the underlying deposit, as might be expected, proved to belong to Troy I. Various walls soon appeared, seriously restricting our excavations, but in a small space, less than 2 m. square, we were able to reach a depth of 11 m. below our datum, where we were obviously already in an early layer of the First Settlement. The potsherds from this deposit are still awaiting study.

In all four of our major areas of investigation in the central region of the citadel,

where we sought evidence to fill the gap in our knowledge of the stratification, the latest layers of Troy I and the early strata of the Second Settlement thus showed themselves stubbornly reluctant to yield the desired information. Only the most meagre collections of potsherds were obtained from the decisive layers, and the pieces themselves are usually small and indeterminate. However, the material, such as it is, will be studied as carefully as possible, and perhaps some conclusions may present themselves.

It is an agreeable contrast to turn now to the great fortification wall of Troy I, discovered by Miss Rawson, for here there is no lack of evidence and the material is abundant. Although its character was not understood, Schliemann's excavations of long ago had already revealed a short piece of the wall in square F 5, and it was here

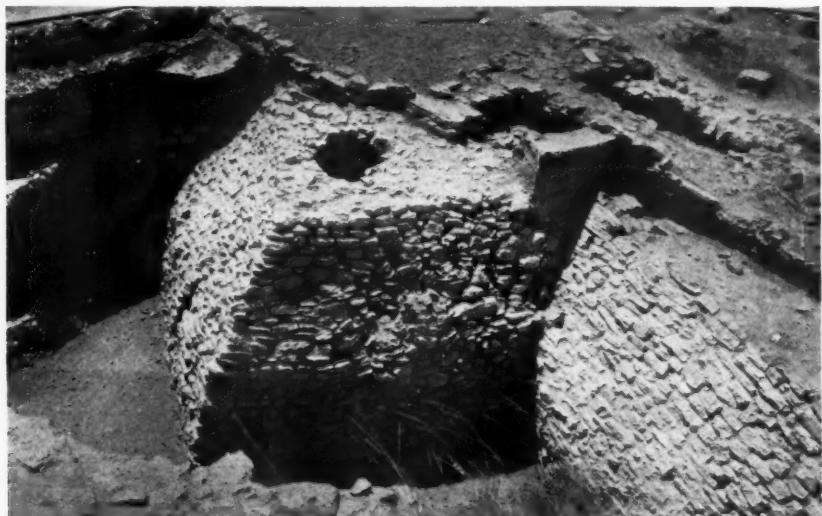


FIG. 7.—EAST TOWER, FLANKING GATEWAY IN FORTIFICATION WALL OF TROY I

that Miss Rawson began her exploration. Only the top edge and the beginning of the sloping face were visible and there was nothing to indicate in advance the monumental nature of the structure. A trench opened to expose the outer face soon showed that the wall, continuing down to a great depth, stretched on both to the northeast and to the southwest and was evidently connected with a massive tower-like projection, which had begun to emerge under the east antae of the later Propylaea, IIc (Fig. 7). Thus, it speedily became apparent that we were dealing with an imposing fortification wall, which could be dated, on the evidence of the contiguous deposit, to the time of Troy I; and Miss Rawson at once recognized that a further section of the circuit was to be identified in a similarly constructed substantial wall which she had uncovered far to the west, at a corresponding level, in the western edge of the scarp below and to the north of our "island" in E 6. From this time on until the suspension of work at the end of July a sustained effort was made to discover and expose the line of this wall and by the end of the campaign its course had been traced through almost one-half of the entire enceinte.

It was not possible to uncover the wall in its whole extent by a continuous excavation, for much of the ground is occupied by later structures which could not be destroyed. Consequently it was necessary to limit our investigation to a series of trenches, pits and probings, wherever they could safely be made. In spite of this handicap, Miss Rawson was able to accomplish her task. Beginning in square C 5, at the extreme southwest, the wall was followed through D 5, E 5, E 6, F 6, F 5, and G 5 to a point in G 4, where it became merged in the highest preserved portion of the fortification wall of Troy II and could no longer be distinguished. The northern half of the circuit remains unknown and it is doubtful if its line can ever be exactly determined; for much of it is buried beneath and incorporated in the mass of the Second City wall and much of it was presumably destroyed by the activity of later builders and perhaps by Schliemann's excavations. The early wall noted by Dörpfeld, and re-exposed by Mr. Sperling, in square C 3, however, is almost surely part of this early defensive system.

The new wall, which Miss Rawson has designated as I W, varies considerably in the different places in which it has been uncovered, both as regards its state of preservation and the details and style of its construction, though it is uniformly built of unshaped stones, many of which, especially near the bottom, are of large size. A proper inner face of the wall has nowhere been found, probably because this part of the citadel has suffered so much disturbance from the repeated telescoping of layers; but the structure seems not to have been uniform in thickness; in some places it may have been merely a heavy stone facing, laid up against an embankment of earth or crude brick; elsewhere it is backed by a solid filling of stones, as in E 5, where the stone fill has the immense thickness of 11.40 m., with no definite line of division or end. The outer face of the wall, except near the bottom, generally has a strong batter, sometimes, as in the east tower of the gateway, with a pronounced bulge, perhaps due to faulty construction; but in some places the successive courses were laid almost vertically. Everywhere the interstices were filled with a light-colored clay which served as a useful kind of mortar. The bottom of the wall, which is bedded on earth, not on native rock, is generally found at a depth of 11.00 m. to 11.50 m. below our datum (though in D 5 it goes much deeper), and the top appears between -7.55 and -7.75 m. in the better preserved portions, which thus have a height of slightly more than 3.50 m.

From square C 5 the wall proceeds, first in a southeasterly direction, then veering more to the east, through D 5 and E 5, where it is interrupted by a great gateway protected by two flanking towers, that on the west in squares E 5-6, that on the east extending into F 6. The gateway lies almost directly below the sunken passage of Dörpfeld's gate F N of period IIa. The actual entrance in our gateway of Troy I is relatively narrow, having a width of only 2 m.; unfortunately it was not possible to clear this opening through to the interior of the citadel. The tower on the west, which we were able to measure by tunnelling along the face from both sides, projects 5.45 m. from the wall and has a breadth of 7.20 m. across its front, while the eastern tower (Fig. 7) is 9.10 m. broad and juts out 4.70 m. from the wall. The southeastern corner of this tower, owing to the uneven batter, seems to form an angle of considerably less than 90° and has a peculiarly sharp appearance. From the

tower the wall continues in a northeasterly direction (Fig. 8), through square F 5, well preserved for some 10 m., then in a much damaged state for some 8 m. farther, where a projecting buttress (which we examined by tunnelling) suggests that an ancient repair was effected, certainly before the First Settlement had come to its end. Following the line of the wall into square G 5 we came to another projecting tower; a tunnel along its southern side reached a corner at 6.20 m., beyond which the

eastern front was followed ca. 1.20 m. Yet another tunnel along the face of the wall behind the tower ultimately encountered a solid wall, presumably the north side of the tower. It seems likely that the tower flanks an east gate, but this conjecture could not be tested by digging, as the site of the possible gateway is covered by too many later remains. The next section of our wall to be uncovered lay much farther northeastward, in G 5 between the walls of the large building marked II N on Dörpfeld's plan, where the space available for digging was not quite sufficient to permit us to reach the bottom of the wall. It was cleared to a depth of 14 courses, however, and its direction was seen to be almost from south to north. Some remains of a superstructure of crude brick were also found in place. The northernmost piece of the wall to be identified was exposed in a trench just behind the fortification wall of Troy II in square G 4. Here, too, 14 irregular and strongly battered



FIG. 8—FORTIFICATION WALL OF TROY I FROM SOUTH

courses were found, covered by a thick deposit of fallen brick. Some evidence survives to show that another tower once stood here, but the building of the Second City wall over the remains has made it impossible to learn the details of the earlier structures.

The débris outside the wall, raising the ground to the level of the Second Settlement, was not of absolutely uniform character in all our trenches and pits; but it usually contained abundant potsherds of Troy I, and it generally lay in several successive layers sloping down away from the wall, seeming thus to be the result of gradual accumulation rather than a deliberate fill. The deeper strata, continuing down to hardpan or rock, 1 m. or more below the bottom of the wall, almost every-

where revealed at least two rich habitation-layers clearly antedating the building of the wall. The latter must consequently be ascribed to a middle stage of Troy I. A massive wall uncovered by Schliemann in his great North-South Trench, in square E 5, suggests, however, that the settlement was already previously fortified, even in its initial phases.

In the earlier deposit outside the wall, in square F 5, Miss Rawson found a grave containing the skeleton of a child under ten years of age. The body had been buried on its left side in a contracted position, with one large stone set on each side of the head to support a smaller covering stone. Apparently no objects had been deposited with the burial.

In square F 5, to the east of the tower flanking the gateway and beneath an unmixed accumulation of Troy I, some 3.50 m. deep, three large stone slabs were brought to light, laid on edge, end to end, in line with the face of the tower. They extended from the corner of the tower into the scarp of the unexcavated pinnacle, or "island," which still stands in this part of the citadel, supporting a giant oak tree. The slabs rested in a slanting position against a sloping layer of whitish earth and stone chips, which may have been deposited at the time the tower was erected, or may represent a somewhat later fill. The alignment of the stones in any case indicates that they were placed with reference to the tower, and they must belong to the same general period of Troy I. All three proved to be worked limestone slabs, of unexpected interest and significance. The one at the west, apparently broken on two sides, now measures 0.77 m. by 0.89 m., and is ca. 0.19 m. thick. Both faces are flat and smooth; one bears in symmetrical arrangement two large and two small, well-worked, shallow, saucer-like depressions or hollows. The eastern slab, roughly pointed at either end, is now 1.27 m. long, with a maximum width of 0.50 m. and a thickness of ca. 0.19 m. On one face, irregularly spaced, are eight small hollows of differing sizes and depths, five being grouped together roughly in the form of a semicircle near one edge of the stone, which seems to have been squared. The central slab, now 0.79 m. high, 0.62 m. wide across the top, and varying from 0.172 m. to 0.192 m. in thickness, has a soft flaky surface which has suffered no little damage. But it still preserves, sculptured in low relief, a heart-shaped human face, portrayed in frontal view (Pl. XX). The face is cut with a raised rounded outline to indicate the chin and jaw and a wider roll above for the hair, which is represented by a series of small bored holes as falling in locks on either side of the head. This arrangement of the hair accentuates the heart-shaped form of the face. The nose, carved in the same plane as the hair and the outline of the lower face, is comparatively long, broadening out somewhat at the lower end. The left eye and the mouth are well rendered, though worn, while the right eye has been almost obliterated. To the left of the face and rising obliquely in broad rounded relief is what seems to be the shaft of a staff, or a sceptre, with a spherical head. Below the face to the right are traces of further carving, perhaps an arm or a hand, but the stone is too much damaged to allow more than a conjecture.

These three slabs had obviously been re-used in the low wall or barrier in which they were found. They are, of course, stelae, and they must once have stood in upright position; but where they were originally erected and why and when they were

pulled down to serve as building material we cannot say. The meaning of the curious hollows cut in two of the stelae is likewise still an unsolved puzzle; but the appearance of monumental stone sculpture in a context that can be attributed to the middle phase of the First Settlement is a startling phenomenon that calls for more than passing attention. This is apparently the earliest example of sculpture in stone yet known in Western Anatolia, or, for that matter, in the Aegean. Exhibiting little if any resemblance to early stone-carving in Mesopotamia and Egypt, it is a piece of strikingly individual character and may presumably be regarded as a work of native Trojan, or West Anatolian, art. It shows an unmistakable and definite feeling for style, which stamps it at once as the product of an age that has behind it a long line of experiment and tradition. It is consequently clear that culture in Troy I had already reached a stage far more advanced than has hitherto been realized.

The discovery of the great fortification wall of the First Settlement and of the contemporary sculptured stele may be regarded as one of the major achievements of our six years of work at Troy. It has added a new chapter to the history of the site. Schliemann's famed royal citadel of Troy II is now seen to be no new creation of its period, but the successor of a stronghold of the same type and character, evolved in a far more ancient age. The institution of kingship, of centralized royal power and of a court that fostered art in the northeastern Mediterranean, may thus be traced back to a much earlier period than was heretofore possible, and the origin of civilization itself is seen to recede still farther into the remote and inscrutable past.

Before going on to another area in our survey, we must mention one further structure discovered by Miss Rawson, namely a later fortification wall of Troy I, which she has called I Z. First observed in 1936 under the "island" in E 6, it was this season traced, by means of soundings, both eastward and westward to a total length of some 50 m. Apparently it was built in connection with an enlargement southward of the western part of the citadel, perhaps at a time when wall I W had been damaged. The later wall appears only on the western side of the gateway, continuing through E 6, D 5, and C 5 the line of the front of the flanking tower. It is peculiar in construction, consisting of a facing, one course thick, of fairly large stones laid against a sloping embankment of clay or brick. In some places the batter is so great that the structure looks more like a ramp than a wall; but perhaps there was once a vertical superstructure in crude brick. The wall dates from the later, but not the latest, phases of Troy I, and forms the third in the series of fortification walls of the First Settlement.

Under the direction of Mr. Caskey excavations were continued on the south side of the acropolis in squares F 8 (Fig. 9) and F 9 and the area of operations was extended westward to include a strip some 6 m. wide, extending from north to south through the adjoining squares E 8-9. In the following statement of the results, Mr. Caskey's report has been in part summarized, in part quoted verbatim.

In F 8 the remains of a house uncovered in 1935 and then recognized as belonging to an early phase of the Fifth Settlement, were first removed, a task which yielded some useful fresh ceramic material and a little new information about the sequence of sub-periods in Troy V.

Immediately beneath the house a layer of Troy IV appeared; it proved to be

thick and complex, containing many architectural remains, together with a wealth of pottery and miscellaneous objects. As in all subsequent settlements, the ground on this side of the hill in the time of Troy IV rose in step-like terraces toward the center of the citadel, and contemporary deposits accordingly descended more and more deeply as they extended southward, a circumstance necessitating attentive observation in following and identifying a given stratum. Digging slowly and carefully Mr. Caskey was, however, able to distinguish five successive sub-periods, represented by walls and floors. They are not all of equal importance and some may represent merely local rebuildings in this area rather than general changes throughout the site. Some portions of each level have been left *in situ* as a permanent exhibit.

"Of period IVe, the latest, we found only a few walls, all in ruinous state. They



FIG. 9.—EXCAVATIONS IN F 8, SEEN FROM THE NORTH

lay just below the earliest layers of V, and there was no sign of any interruption in sequence between the two. At the northern edge of our area a deposit of burnt matter seemed to indicate that some of the last buildings of the Fourth Settlement had ended in a conflagration. To the south we found few signs of burning. Five pots were recovered that can be definitely assigned to the last phase of Troy IV; ten others may belong to that or the next earlier period.

"Two walls and part of the floor of a room of IVd lay within our area of excavation. The walls were roughly built and irregular, as seems to have been customary in Troy IV, but they contained large solid blocks in their foundations and had been preserved to a height of four to five courses. Three fragmentary pots, four spindle whorls, and a small flint saw were found in the floor deposit, which lay at 5 m. to 5.20 m. below our datum. Just east of the room, at the same depth, we recovered two other vessels, of which one is a small jar with plastic representation of human features.

"A retaining wall that ran east and west across our area, evidently constructed to

support a terrace, was at the same time made to serve as a house wall. It was built in the second sub-period, IVb, and was thickened and re-used in IVc. We were able to distinguish corresponding floor levels running south from this wall at 5.40 m. and 5.65 m. below datum, each of which yielded plentiful sherds. Six pots, probably to be assigned to IVc, were found in the northern and eastern parts of F 8, in strata that appeared to correspond with the floor at -5.40 m. From the lower level, IVb, we also recovered a one-handled bowl and a fine reddish-brown tankard.

"The layer representing the first phase of Troy IV was marked by signs of a violent conflagration. It was thus clearly differentiated from the others, which had borne evidence of normal and gradual decay and rebuilding. We were able to excavate parts of three adjoining rooms of IVa, and to examine in section two others, the walls and floors of which were visible in the bank. The room numbered 116 on our

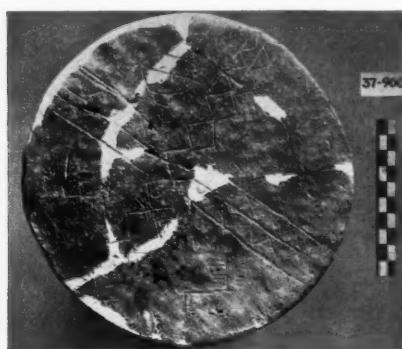


FIG. 10.—LID OF PYXIS, TROY IV



FIG. 11.—LARGE JAR, TROY IV

plans was roughly rectangular and measured ca. 2.50 m. by 5.50 m. The stone foundations of its walls averaged 0.50 m. in diameter and stood two to six courses high. Their superstructure of crude brick had fallen and formed a layer of clay that covered the burnt débris on the packed earth floor. Against the west wall of the room we found a millstone and the remains of a hearth or oven. The lower parts of two pithoi stood in place under the north wall, and twenty-one other crushed and shattered vessels, of various shapes and sizes, lay scattered about the room (Figs. 10, 11). From the floor deposit we also recovered two plain and five decorated spindle-whorls, five terracotta brush handles, a fiddle-shaped idol in marble, and a whetstone. One of the large jars contained a quantity of carbonized grain.

"South of Room 116, and communicating with it by a doorway, lay a similar room (numbered 218 on our plans). Only a corner of it fell within our area, but from the six square metres of floor that we cleared we recovered five pots (two closely related to Early Helladic ware), a bone awl, a fine bronze needle, a stone idol, and a chipped flint saw. Built into the corner of the room was a structure of brick and stone, covered with a white clay wash, much like the "corner seat" found in a house of the Fifth Settlement two years ago.

"To the west of Room 218 there appeared to be a third room of IVa, also covered

with burnt débris. The floor level, however, was not well marked, and the area had become too limited to allow thorough investigation.

"Excavation below the level of Troy IV was limited by both the space and time at our disposal, but we were able to do some digging along the north edge of the area, and in one place to sink a pit, about 2 m. square, to hardpan. Wherever we dug below IVa floors we immediately found a change in the character of the pottery, fragments of flaring bowls now appearing in profusion. The layer of Troy III was not deep, and only two walls, ruined and unrelated, came to light. At a depth of ca. 7 m. below our datum we came upon the tops of some very wide stone and brick walls, belonging to a large building recorded by Dörpfeld in *Troja und Ilion*.¹ It had been destroyed in a tremendous conflagration and was covered with fallen matter. Small bits of the floor of two rooms were found undisturbed at -7.80 m., but they contained very few sherds to date the building. A gold pin and bead lay among the débris. It seems probable that the walls belong to the last period of Troy II.

"From -7.80 m. to -10.65 m., where hardpan was reached, we encountered no walls, but were able to collect a series of sherds from nine distinct strata, all to be assigned apparently to periods of Troy II. Wheel-made pottery was present in the earliest layer."

The extension of our excavations into E 8-9 was undertaken primarily with the object of discovering and exposing the western end of the "Pillar House," in order to reveal the complete plan of this long, rectangular building of Troy VI, which we have uncovered running eastward through F 8-9 to a terrace beside the roadway that leads to the upper citadel from the South Gate.

After a mass of débris from Schliemann's excavations had been removed, we came upon an undisturbed layer, about 0.40 m. deep, containing sherds of Roman date. With it were associated a foundation wall of soft limestone (A on our plans, partly uncovered in 1932), that probably belonged to Dörpfeld's building IX B, and a platform made of large limestone blocks, apparently the substructure of a monument of some kind which had stood some 4 m. to the south of the wall.

"About 5 m. south of the platform we came upon a handsomely built well, 1.18 m. in diameter and 21.40 m. deep. From it we recovered numerous miscellaneous objects dating from the Roman Imperial period, and at the bottom were thousands of fragments of plain water-jars. When the well fell into disuse, it was evidently employed as a refuse-pit, for it contained an extraordinary quantity of animal bones: toward the bottom chiefly leg-bones and skulls of horned cattle; above, bones of smaller animals and birds."

Toward the southern end of our area we brought to light some portions of "Theater C," traces of which had been identified and recorded on his plan by Dörpfeld. It was possible to recognize five rows of seats, built of rough limestone, and two narrow aisles, dividing the cavea into three sections. In the center at about the fifth row a single block of a marble structure, perhaps some sort of proedria, was still preserved *in situ*. The upper part of the theater has completely vanished.

Below the Roman stratum in the northern part of our area, a layer some 0.50 m. deep yielded many good sherds of Troy VIII, mainly of local manufacture, but in-

¹ I. pp. 99-100, Fig. 22, p. 73.

cluding, with some other imported pieces, fragments of a small Protocorinthian lekythos.

"Perhaps the most interesting layer found in E 8-9 was that of period VIIb. It lay at 1.50 to 2.50 m. below our datum, throughout the northern part of our area, and was clearly contemporary with the similar deposit found in the adjoining area (F 8) in 1932. Two periods of habitation could be distinguished in the remains of walls and in the stratification of the earth, but both belonged to the same cultural phase. Architecturally the layer is marked by the widespread use of rough orthostates in the walls, ceramically by the appearance of hand-made *Buckelkeramik*.

"We came first upon fragmentary walls of a series of rooms that had been largely destroyed by later builders. The floor levels had been at 1.50 to 2 m. below our zero-point, sloping slightly downward toward the south. At this depth we recovered, more or less nearly complete, two small one-handled jugs, a two-handled cup, and



FIG. 12.—CUP IN *Buckelkeramik*

two bowls, all in *Buckelkeramik*; and a small one-handled cup in gray ware, wheel-made but imitating a common bucchero shape.

"One entire room and parts of others, belonging to the earlier period of VIIb, fell within our area of excavation. The walls, averaging 0.60 to 0.70 m. in thickness, were built chiefly of irregular stones of moderate size and contained numerous flat orthostate blocks in the lower courses. A few well-cut, rectangular blocks of the kind found in Troy VI had also been employed. The room was nearly rectangular, measuring about 5.50 m. from north to south by 4 m. from east to west. It had evidently been in use throughout a fairly long period, since the walls showed numerous repairs. A well made doorway, 0.95 m. wide, opened through the south wall on a street. A pivot-stone for the post of the door, which swung inward, was found in place. The opening had been walled up at some period and a new door made in the north wall of the room. The earth floor, sloping irregularly from -2.20 m. at the north to -2.50 m. at the south, was covered with fallen stones, probably from the final collapse of the house. No built hearth was discovered, but a mass of burnt matter against the east wall may indicate where the cooking was done. A moderate number of animal bones was found scattered throughout the room.

"Fourteen whole pots were recovered from the floor deposit. These comprise eleven vessels in *Buckelkeramik*, four jugs and four cups (Fig. 12) of various sizes,

two large two-handled jars with high necks, and a two-handled bowl; and three pots in Trojan gray ware, namely two jugs and a wide-mouthed jar, the last an interesting variation of a shape common in VI and VIIa. Miscellaneous objects from the floor include: three bone pins or awls and a fragment of ivory, a blue glass bead, a rectangular bit of thin gold leaf, a soapstone mould for casting metal objects, a stone pestle and celt (the latter found inside one of the bucchero jugs), and thirteen terracotta spindle-whorls and buttons.

"Below the floor of the room we found some traces of earlier layers of Troy VII, though there was little of the easily recognizable tan ware of VIIa. One barrel-shaped jar of coarse ware, with two handles and two plastic bands with thumb impressions, was recovered complete at -3 m., and at about the same depth a flat marble figurine with the well known owl-face, a type generally supposed to belong to a period much earlier than VII.

"South of the VIIb house there was a street about 3 m. wide, which ran westward from the South Gate and was apparently in constant use throughout VIIa and VIIb. Between this street and the inner face of the Sixth City Wall we found a deep accumulation of deposit representing two distinct periods. To the earlier belonged a typical house of VIIa: it was built, like many others, against the face of the city wall; it had a pithos, with a flat stone lid, set into the floor, and the building had been destroyed in a violent conflagration. From the floor deposit we recovered four whole pots of VIIa fabric, including a long-necked jug of rare shape (Schmidt, *Katalog*, No. 3012). Above the burnt débris of this room lay nearly two metres of stratified deposit from which we were able to collect a large and interesting series of sherds. Time did not allow a complete study of the material, but it appears that most of the deposit belonged to a period, which, while certainly later than VIIa, was yet earlier than the introduction of *Buckelkeramik* and the orthostate walls of VIIb. The characteristic pottery is gray ware in the Trojan tradition, but with shapes previously not well represented in our collection. Painted sherds are rare, but we found almost intact an alabastron with straight vertical sides, decorated in Late Mycenaean style.

"When the material of the later periods had been recorded and removed, we were able to lay bare the western end of the "Pillar House" and to expose to view most of the ground-plan of this imposing Sixth City building (Fig. 13). It is nearly 27 m. long from east to west (the east wall is in such ruinous condition as to make exact over-all measurement impossible), and slightly over 13 m. wide, including the greatest thickness of the south wall. The inside measurements of the great hall are approximately 23.70 m. by 9.50 m. The western end of the hall was divided into three recesses by two projecting walls, 3.25 m. in length. At least two of these recesses had been shut off, to form small rooms ca. 1.80 m. by 2 m., by another wall running north and south. The latter was built in Troy VI, for a stone-lined, trough-like structure, containing no later sherds, was found set against its face, but the wall is of a style different from that of the rest of the building, and may not have belonged to the original plan. The three recesses are paved with small stones; the southernmost, which could be best examined, showing a layer of brick below the stones, and under that an earlier pavement made of larger slabs.

"We have discovered no doorway other than the one that must have existed in

the north wall, above the three stone steps mentioned in last year's report. This seems hardly consistent with the monumental character of the building itself, and may well have been a later addition. It is probable that the main entrance was at the east, near the gate of the citadel, where the wall is now ruined.

"The south wall of the building was 2.80 to 2.90 m. in thickness, and served incidentally as a sort of terrace wall, for the floor was some two metres higher than the ground outside. Its foundations were still wider, showing set-backs, characteristic of Sixth City masonry, at five-metre intervals. Only two of these have been seen, since the eastern end of the south wall could not be excavated.

"Just outside the southwest corner of the building we discovered a large oval stone, 1.25 m. high, 0.65 m. wide, and 0.40 m. thick. We suppose that it originally



FIG. 13.—GENERAL VIEW ACROSS PILLAR HOUSE FROM NORTHWEST

stood upright, though it was found lying almost horizontal. Near the middle of one face there is a bored hole, about 3 cm. in diameter and 20 cm. deep. The significance of the stone is by no means clear, though it seems certainly to be related to the building, and may well have had some religious purpose. It is perhaps analogous to the four "baetyls" that stand outside the tower by the South Gate.

"To complete our investigations in this area we dug a trench 1.25 m. wide and 5.25 m. long, in F 9, extending from the south wall of the "Pillar House" to the inner face of the Sixth City Wall. The former proved to have foundations resting on a step-like base at 6.60 m. below datum. The wall of the citadel went down to hardpan, which we found at -10.55 m. The foundations of the wall receded sharply towards the bottom, and the line of the *Baugrube* was visible all along its inner face, showing how the builders had cut a sloping scarp in the hillside and set their blocks against it. Some of the layers that had been cut through at that time could be traced up to the wall of the "Pillar House," a fact which seems to prove that that building was

standing when the wall of the citadel was constructed. We found, furthermore, that fully three metres of deposit, as excavated in our trench, belonged to a period earlier than the "Pillar House," though it could all be assigned to Troy VI. Only in the lowest layer was there any notable amount of red ware, and even here gray sherds of early VI made up 20% of the total. Thus we find further evidence of the long duration of the cultural period Troy VI and the comparative lateness of its great monuments."

The season of 1937 saw the resumption of activity in the region of the South Gate of the Sixth Settlement under the supervision of Mrs. Semple, who completed the excavation of the gateway itself, cleared a long extent of the roadway leading from it toward the center of the citadel, uncovered a smaller branch road running westward inside the fortification walls, examined a terrace outside the eastern end of the "Pillar House," and in an area just to the north of that structure laid bare the walls of a house of many rooms, dating from the period of transition between Troy V and VI. In addition to all this work, Mrs. Semple also found time to re-open two deep ancient wells, one of Hellenistic and one of Roman date.

In order to expose the gateway properly, it was necessary to remove first an enormous cornice block which had fallen, probably from the corner of the Bouleuterion, and lay, bottom up, over the Sixth City wall to the east of the gate; and next a short piece of the foundation of a structure connected with the Bouleuterion and dated by its mortar to Roman times. Beneath the cornice block and above the Sixth City wall, which had suffered considerable damage, were found the remains of a small vaulted kiln, constructed of brick and mortar. The stone pavement of the gateway and the associated well-built drain, which has been mentioned in previous reports, were definitely proved to belong to period VIIa, although the roadway of Troy VI at that point must have lain at a level very little deeper. A much higher cobblestone pavement, ca. 0.80 m. above that of VIIa, can now safely be attributed to period VIIb.

The street ascending from the gate to the upper part of the acropolis and curving slightly westward was followed some 30 m., its full extent as now preserved, up to the edge of Schliemann's great Southeast Trench. Just inside the gate is a small plaza, some 5.30 m. wide; this and the roadway farther northward, ca. 3.30 m. wide and bordered by high stone walls on either side in the time of the Sixth Settlement, obviously had a long history, indicated by many successive changes of level; and two layers of débris, due to severe damage and demolition, could easily be distinguished. The upper, which comprised masses of fallen stones, charred wood, carbonized matter and abundant other traces of fire, was dated by its potsherds to period VIIa, and must certainly represent the violent destruction of the earlier phase of the Seventh Settlement. The deeper layer, containing quantities of potsherds of Troy VI, consisted likewise of a tremendous mass of stones (Fig. 14), apparently fallen from buildings on either side of the street, but not marked by signs of burning. In this stratum we must recognize the ruins caused by the earthquake which we believe to have brought an end to the settlement of Troy VI. Both these layers of débris have now been removed and the roadway has been cleared down to a hard-packed earth pavement of early VI (Fig. 15).



FIG. 14.—FALLEN STONES IN STREET, DESTRUCTION DUE TO EARTHQUAKE THAT MARKED THE END OF TROY VI



FIG. 16.—CALCINED STONES AND BURNED DÉBRIS OF TROY VIIa, FILLING BRANCH STREET



FIG. 15.—SOUTH GATE AND ROADWAY AT COMPLETION OF EXCAVATIONS



FIG. 17.—HOUSE OF TRANSITIONAL PHASE, TROY V-VI

The narrow street branching off to the left some 5.75 m. inside the gate has been traced a long distance ascending westward and has already been mentioned in the account of the excavations superintended by Mr. Caskey in squares F 9 and E 9. It was a thoroughfare ca. 2.30 m. wide, used in two periods, namely VIIa and VIIb, for the upper accumulation of deposit produced numerous sherds of *Buckelkeramik*, while the lower lay under a heap of partially calcined stones and burned débris (Fig. 16), such as we regularly find recording the end of VIIa in a general conflagration. Some remains were observed of a gateway or a doorway, leading up northward from the street to the terrace on which the "Pillar House" had stood in the time of Troy VI, and evidence was noted that the ground level of VIIa here almost coincided with that of VI. But the "Pillar House" must have been completely demolished at this time, for the street passed high over the foundations of the southern supporting wall of that building.

To the east of the "Pillar House" lay a platform, ca. 3 m. wide, separated from the main roadway by a well-built wall of VIIa. This latter was constructed over an earlier wall of heavy Cyclopean masonry, which presumably supported a similar but wider terrace in the time of Troy VI, when the "Pillar House" was occupied. Later disturbance has, however, caused so much damage in this region that neither the arrangement of the original platform nor the position of the door in the east wall of the "Pillar House," if there was one, could be determined; and the use of the area in period VIIa is almost equally unknown, though the discovery of a huge pithos, set among loose stones, suggests that part of the space, at any rate, may have been included within a dwelling house.

In the period of the Sixth Settlement the ground immediately to the north of the "Pillar House" rose in a fairly high, step-like terrace, as has been mentioned in earlier reports. Much of the accumulated débris of Troy VI on this side, however, was disturbed and removed in post-Roman, perhaps Byzantine, times, when a broad trench was dug across the area, roughly from east to west. The purpose of this relatively ancient excavation could not be certainly determined, but we found that the loose earth filling the cut contained a great many blocks and fragments of marble taken from Roman buildings, and the original bottom of the trench was strewn with thousands of marble chips and splinters. We conjectured, therefore, that the disturbance was due to the work of mediaeval marauders, who were collecting marble, to be burned into lime. Whatever their object, it is clear that the floor of their trench reached the bottom of the earliest habitation débris of Troy VI.

In the eastern part of this area, just to the west of the main street coming up from the South Gate (but high above its level), Mrs. Semple, after clearing away the last traces of the mediaeval intrusion, dug into the undisturbed, underlying deposit. The potsherds, which immediately began to appear, soon made it plain that she had found a transitional layer that must be assigned to an intervening chronological phase between pure V and pure VI. Extending her excavation northward beyond the edge of the "Byzantine" cut, where a superposed wall definitely belonging to Troy VI had to be removed, Mrs. Semple eventually laid bare the substantial walls of a house, which proved to be almost complete in plan. Only its extreme north-western corner is lacking, having been destroyed to make way for a Roman founda-

tion. It is a long rectangular building, oriented from northwest to southeast, divided by plaster-coated partitions, some of stone, some of crude brick, into five or more relatively small rooms (Fig. 17, p. 578). The position of the main doorway has not been definitely determined, but it probably lay at the southern end of the east side, opening into a small vestibule, from which the other rooms are accessible. The ceramic remains on the floors, though not excessively rich in whole pots, comprised a great many sherds, which illustrate well the character of the pottery in this transitional period. Much of it, closely related to fabrics of Troy V, is a red-wash ware (Fig. 18) including examples of strongly profiled rims and of characteristic deep bowls; much of it is of an early type of gray Minyan ware, in which ringed stems of goblets are common. We have not yet had time to study this material adequately, but we may reasonably hope that it will shed new light on some of the problems of ceramic development in the transition from the Early to the Middle Bronze Age at Troy.

With reference to the two wells excavated by Mrs. Semple not much need be said here.



FIG. 18.—CUP IN RED-WASH WARE, TROY V-VI

here. The huge rectangular Hellenistic well, found in 1935¹ to the north of House 700 and which had been cut through the Sixth City roadway leading into the acropolis from the South Gate, was filled with masses of débris and stones, many of great size, which were laboriously removed. When rock was reached the handsomely built lining of square stones stopped and the size of the shaft was much reduced. The bottom was found at a depth of ca. 14.15 m. below the level of the Sixth City street. The well yielded quantities of Hellenistic pottery and many fragments of broken water-jars, but no objects of great value or importance. The Roman well was discovered just to the south of the Byzantine cut, alongside the north wall of the "Pillar House." It was roughly but strongly lined, with unworked stones down to hardpan, then hewn in the rock to a total depth of ca. 20 m. Many fragments of plain water-jars and of tiles and quantities of animal bones were recovered; and from the very bottom of the shaft came a bronze handle of a jug, decorated with a human head in relief.

The investigations begun in 1936 at the eastern end of the citadel in square J 7 were continued and completed in 1937. Mrs. Blegen again had charge of this work, with Mrs. Hill as her assistant. The object of the undertaking was to uncover the broad open space or passage which lay between House VI G and the fortification wall, and to examine carefully the various layers of débris, with which the area had become filled. In the preliminary work done in 1936 a somewhat disturbed, superficial deposit, associated with some fragmentary walls and assignable to VIIb, had been removed; a well marked floor of VIIa had been found to extend over two rooms, which were separated by a stone wall and each of which contained several

¹ *A.J.A.* xxxix, 1935, pp. 571 f.

large pithoi; the floor itself, covered with burned débris and discolored by the fire which had obviously destroyed the house, was seen to have been laid over a great mass of fallen stones, evidently shaken down from the buildings on either side by the earthquake that fixes the end of the Sixth Settlement; and finally a wide transverse trench had revealed an underlying accumulation of Troy VI, the lower part of which was extremely rich in its yield of pottery.

In the recent campaign the partition wall of VIIa was removed, together with the corresponding floors at 2.10 m. to 2.20 m. below our datum. The two pithoi still remaining *in situ* in the northern room proved to be virtually intact and of moderate size; one differs from all the others found in this region in having no raised horizontal bands about the body. A second pair of storage jars was taken out from the room beside House VI G, excavated in 1934; and a third pair was uncovered in the house called by Dörpfeld VII *c*, a small portion of which at the south end of our area had been spared when Schliemann's Southeast Trench was dug. The VIIa floor in this room, or house, lay some 0.50 m. deeper than the floor we have just mentioned, as the ground level both in Troy VI and VIIa apparently sloped downward toward the south from its highest point behind Tower VIh.

Immediately beneath the VIIa floors, except where the deposit had been disturbed when pits were dug for the setting of the pithoi, fallen stones made their appearance in the débris in considerable numbers (Fig. 19), especially in the northern part of our area behind Tower VIh. Some clear signs of burning were associated with this "earthquake layer," particularly toward the west alongside House VI G, and one might conclude that the seismic disturbance was followed in some places, at any rate, by a conflagration. The débris continued without much change down to ca. 3.20 m. below our datum, where it rested on a well-trodden floor or pavement.

This latter corresponded admirably in level with the doorway, traces of which had been noted by Mrs. Blegen in 1936 in the east wall of House VI G, although later reconstruction had for the most part filled the opening. In a further examination of the doorway, Mrs. Blegen was able to identify, still in place, one block of the north jamb and two or three of the south jamb, observing that the edge of the stone in each instance had been worn smooth and highly polished by the constant rubbing against it of those who passed in and out, a clear demonstration that the opening served as a door and not as a window. The threshold lay considerably higher than the floor with the great stone column-base inside House VI G; and two steps, perhaps of wood, must have been provided to make ingress and exit easy, unless indeed the doorway was constructed in a later phase of VI after the original floor of the house had been buried under an accumulation of débris some 0.50 m. to



FIG. 19.—FALLEN STONES BELOW FLOOR OF VIIA

0.60 m. deep. In the period when the door in the middle of its long side was in use, House VI G was at all events certainly not a proper megaron. At this same time a high, narrow wall, with well-finished north end and west face, was built opposite the doorway against the back of the Sixth City wall, but its purpose is not clear, for we found no vestige of cross-walls to north and south, by which the area might have been enclosed and converted into a room. The isolated east wall had been erected across the top of a narrow, stone-lined shaft, exactly like the miniature "wells" described in our report for last year. Consequently we now have six of these peculiar pits close behind the Sixth City wall, and they seem to be grouped in three pairs,

one pair in square J 7-8, one in J 6-7 and one in J 6. No satisfactory explanation of their use has yet come to light. The wall passing over the new "well" must belong to the last phase of Troy VI, for its upper part was shaken down in the earthquake that indicates the end of the Sixth Settlement.

Digging on down through the floor at 3.20 m. below our datum Mrs. Blegen came upon a deposit some 0.80 m. deep, formed of several distinctly marked layers of débris, but apparently all laid down together



FIG. 20.—LAYERS OF CRUSHED MUREX SHELLS

within a short space of time, for potsherds from the top, middle and bottom of the deposit were found to join together, belonging to one and the same vase. Several of the layers so clearly differentiated were composed almost wholly of crushed murex shells by the thousands (Fig. 20), and these strata can be traced continuously some 20 or 30 m. northward into square J 6. There can be little doubt that the passage between the Sixth City wall and the large houses VI E, VI F, and VI G was treated as a repository for rubbish from a purple-factory. Indeed, the establishment may have occupied this open space itself, and it is possible that the diminutive "wells" had some function in connection with the purple industry. Numerous stone grinders and pounders and fragments of worn millstones recovered here were doubtless used to crush the shells.

The deposit contained vast quantities of potsherds, mainly of local gray and

yellow Trojan wares, but including many fragments of imported Mycenaean vases. These latter are of a transitional character, ranging from a late stage of the "Palace Style" of L.H. II to an early phase of L.H. III. Our layer clearly corresponds to the early floor deposit found by Mr. Caskey inside and outside House VI F, and in a few instances fragments from one area proved actually to join pieces from the other. Much patient effort was devoted to the task of fitting our fragmentary material together, and by the end of the season we had been able to reconstruct 14 vases of various shapes and sizes (Figs. 21-22). Several are vessels that must have been imported from Mycenae, or some other Mycenaean center, about 1400 B.C., the most notable being a tall three-handled jar decorated with a design of large heart-shaped leaves, part of which was discovered in 1936.¹ Some additional pots may yet be recovered by further labor, but unfortunately the bulk of the material is hopelessly shattered.

This rich deposit came to its end at ca. 4 m. to 4.10 m. below our datum, where

the earth became extremely hard and firm and fragments of pottery far less



FIG. 21.—JAR WITH BRIDGED SPOUT, TROY VI



FIG. 22.—FOUR-LEGGED ASKOS, TROY VI

abundant. We had no time to dig into this underlying layer, but it must certainly belong to a relatively early phase of Troy VI.

Since its discovery and excavation by Professor Dörpfeld in 1894, the east fortification wall of Troy VI has justly been regarded, together with its contiguous Tower VIh, as constituting one of the most imposing and monumental architectural features of the site. The wall has, however, always been so closely hemmed in by the massive Roman foundation almost paralleling it on the east, that visitors have never been able to find a vantage point from which a comprehensive, unobstructed view of the whole great defensive system might be enjoyed. It was necessary either to mount a high embankment and look down on the wall as into a pit, or to descend into the deep cutting and look up at the wall without having adequate space to withdraw far enough to obtain a general view. During the season of 1937 we determined, mainly in the interest of visitors, to expose the wall and the tower, so that they might be seen properly and in their entirety in a suitable setting, a large task involving not a little otherwise unrequited labor; but we hoped at the same time it might give us an opportunity to examine an addition to the fortification wall, apparently built in VIIa, and to study the strata of periods VII and VI outside the fortress.

¹ *A.J.A.* xli, 1937, p. 35, fig. 15.

Work was accordingly begun at the southern end of square K 6, and under the direction of Professor Semple a broad cutting was carried southward through K 7 and K 8 until the whole of the space between the east and west foundation walls of the early Roman colonnade, called by Dörpfeld IX M, had been cleared down to the ground-level of period VIIa. As the accumulation here was more than 6 m. deep, a vast amount of earth had to be removed, much of it clearly débris from previous excavations. The laying of the Roman foundations in deep wide trenches dug through the earlier deposit, the construction of a great stone drain under the colonnade, and some other intrusions had sadly disturbed the pre-Roman layers, and it was only when we reached a depth of ca. 5 m. or 5.50 m. that we began to find strata more or less nearly free from contamination.

A good many sherds of *Buckelkeramik* and a portion of a wall built with a row of orthostates indicated that some of the overlying deposit had been laid down in period VIIb; but the first definitely marked floor—which also showed many signs of burning—was that belonging to VIIa. Several walls of this period were uncovered

and it is clear that at this time houses were built outside the citadel. These buildings were oriented roughly from northeast to southwest, and in consequence they had been cut off and damaged by the deep Roman foundations, which were carried down to native rock. No complete house was brought to light, but part of one room still preserved a fairly rich floor-deposit: the pottery included two shallow plates, two shallow curving bowls (Fig. 23), one handsome jug and the greater portions of

two others, and almost the whole of a huge "pilgrim flask," all good examples of excellent VIIa ware. Under this floor a layer of Troy VI appeared, yielding quantities of potsherds and apparently including house-walls; but, to our regret, time did not permit a real examination of this stratum.

The piece of fortification wall, assigned by Dörpfeld to period VIIa, probably once stretched all the way across from the east pier of the East Gate to the corner of Tower VIIh, representing a small enlargement of the acropolis in the time of the Seventh Settlement. This was one of the questions we hoped to be able to settle, but unfortunately the southern part of the VIIa wall had been completely demolished when the west foundations of the Roman colonnade were laid, and we could not trace it beyond the point already reached by Dörpfeld. The purpose of this modification of the enceinte in VIIa has never been clearly understood. Perhaps when the damage caused by the earthquake that marks the end of Troy VI was being repaired at the beginning of the succeeding period, advantage was taken of the opportunity to enclose a little more ground within the citadel.

In the débris that could not be certainly dated, well above the definite floor levels of VIIa, several interesting objects were recovered. One seems to be a crescent-shaped figurine, the head of which has been badly damaged. Made of rather coarse clay, it is coated apparently with a lead glaze, dark brown in color, on which details



FIG. 23.—SHALLOW BOWL, TROY VIIA

are added in thick yellow pigment. The whole looks very much like a product of the old Çanakkale potteries, but its place of finding would seem to preclude so late a date. A small mould of steatite or soapstone, for making ornaments and beads of glass paste, is notable for its delicate carving (Fig. 24). One of our finest pieces is a magnificently modelled horse's head in terracotta (Fig. 25), finished with a smoothly polished, black surface, which can be paralleled in the pottery of Troy VI, VII and VIII.

When the excavation of the area was completed, the southern part of the west foundation of the colonnade IX M was taken down and moved away, together with the western portion of the stone drain already mentioned and a heavy adjacent substructure of hard limestone. This work required great care and attention to avoid accidents, since many of the blocks were very large and ponderous; but



FIG. 24.—MOULD FOR MAKING
ORNAMENTS AND BEADS

FIG. 25.—HORSE'S HEAD IN TERRACOTTA

thanks to the personal supervision and management of Mr. Semple, the task was safely accomplished.

The result of these labors has been to open up a broad space along the eastern side of the citadel. Tower VI h and the fortification wall now stand forth in their connection and continuity and may be seen in a manner more nearly worthy of their importance (Figs. 26-27). The eastern substructure of the colonnade IX M has been left untouched, to show the sturdy character of Roman foundations, and the eastern part of the drain may still be seen in place. Our excavations have also exposed the southern foundation wall of the colonnade, and between the latter and the line of the rear wall of the Bouleuterion we have cleared away a considerable mass of débris. The time available this season did not suffice for the completion of all the work we had planned in this region, but we feel that something worth while has been done to make the site more presentable and more easily comprehensible to those who come to see it.

The excavations commenced in 1935 in squares A 7-8 on the southwestern flank of the acropolis were continued during the past season under the supervision of

Miss Dorothy Rawson, who has had charge of work in this area since its beginning. In the northern part of this sector, in A 7, digging was extended some 6.50 m. northwestward, where the discoveries of last year had given some hope that a good deposit of pottery belonging to the Eighth Settlement might come to light. A fairly extensive space was here available for investigation, lying between the fortification wall of Troy VI and the broad stepped foundation mentioned in our preceding report.

A further study of this latter monument revealed that it was really the sub-structure of a long straight stand of seats, and scanty traces were observed of two of the aisles or stairways that had once divided it into sections. The northwestern end of this "theatral area" was recognized by Mr. Boulter in a well-built wall (Fig. 28), which we unearthed in squares A 5-6, and the total length of the edifice was found to be ca. 38.76 m. Less than one-third of its extent has been exposed, but all the superstructure seems to have vanished; no seat has been found in place and no seat-block has been identified among the stones lying in the neighborhood. The foundation was apparently contemporary with the marble podium or altar, which represents the final stage in the use of the sanctuary discovered by Miss Rawson in square A 8, and the "grand-stand" was presumably erected to serve as a place of assembly, from which spectators could watch ceremonies that took place in the open space before the altar. At the top of the "theatre," behind the seats, there may have been a broad passage, or even a colonnade, for the lower courses of what seems to be the rear wall of the structure were found still standing some 4.50 m. beyond the topmost preserved step of the foundation. The extreme northwestern part of this wall was identified by Mr. Boulter in A 5-6, where it bonds with the end-wall of the "stand" in a well-built corner. A substantially constructed stone drain, partly coated with waterproof plaster, here runs along the rear of the building, no doubt intended to carry off rain-water and prevent the seats from being flooded.

In the area, 6.50 m. long, chosen for exploration in A 7, Miss Rawson, after removing a heap of loose earth from former excavations, first examined a late Hellenistic layer, exposing the remains of the rear wall of the "grand-stand," which was still preserved to a height of four courses. When this had been studied and recorded, it was taken out, together with an adjacent stone platform, probably of contemporary date, and the accompanying fill.

About 0.50 m. below the bottom of the wall we reached an undisturbed level of Troy VIII, signalled by the appearance of a small stone-paved circle, exactly like those found farther southward in 1936. The next metre of deposit proved to be the product of gradual accumulation during the life of the Eighth Settlement, in which six successive layers of these puzzling circular stone pavements were laid down one after the other. Some layers had one or two, others three or four circles (Fig. 29), and the total number uncovered was 16, two of which had already been partially disclosed in 1936. The aggregate for the two seasons is thus 23 in this small area, hardly more than 12 m. long. Some of the circles were complete and well preserved, others badly damaged; they varied considerably in size, the diameters ranging from 1.50 m. to 2.25 m. Several were neatly edged with small orthostates, while others had one or two bordering courses of fairly regularly cut stones. The



FIG. 26.—EAST WALL OF TROY VI



FIG. 27.—EAST WALL AND TOWER VI H, TROY VI



FIG. 28.—NORTHWESTERN END OF "GRAND-STAND"



FIG. 29.—STONE-PAVED CIRCLES, TROY VIII

surface in most instances sloped downward toward the center, and the stones were generally set in sand, in one example, coated with clay plaster. No new evidence was observed to establish the purpose of these stone circles, and we have no explanation to offer beyond the conjectures submitted last year.

Immediately below the deepest of the circles, Miss Rawson came upon the walls and floor of a small building, shown by the accompanying potsherds to belong to an early phase of Troy VIII. The house (Fig. 30) was oriented from northwest to southeast, lying roughly parallel to the Sixth City wall, but the original length could not be determined, as the southeastern end wall had completely vanished. The portion preserved had a length of ca. 3.60 m. and a width of 3.20 m. An opening, probably for a door, appeared in the northwestern end just beside the southwestern lateral wall. The walls were well built, relatively narrow, two of them constructed with an outer and inner base course of small slabs set on edge, in the fashion of orthostates, with rubble filling; and the more or less nearly level top indicated that they were intended to bear a superstructure of crude brick. In the axis of the room was a large circular bothros, 1.27 m. in diameter, 0.50 m. deep, filled with soft earth and stones. The sherds recovered from the floor were relatively scanty, but to the west of the house Miss Rawson found a much richer ceramic deposit, which provided sufficient material for the restoration of several vases and gave us the beginning of the pottery-sequence of Troy VIII, represented by the fragments collected in the many layers of the stone circles.

Directly underneath the building of Troy VIII a complex of walls appeared, and ultimately five small rooms were laid bare (Fig. 31), all belonging to a house of the Seventh Settlement, the greater part of which had been uncovered just to the south of this area in 1936. Apart from a stone pavement in one room, the floors are not well marked, and the character of this peculiar building with its many tiny rooms is not clearly understood. The walls are for the most part carefully built, with the regular use of small orthostates in the lowest course. A few sherds of *Buckelkeramik* were found this year, but most of the potsherds are of the traditional gray and yellow local wares, and if the house is to be assigned to VIIb, it must be to an early phase of that period.

In the lower part of her sector, in A 8, Miss Rawson undertook, with the collaboration of Dr. B. H. Hill from June 18 to July 10, an intensive examination and study of the sanctuary she had previously brought to light. This task, which involved much careful digging in many different places throughout the precinct and a wide expansion of the excavation toward the south and southwest, has not yet been completed; but already a great deal has been learned about the long and complicated history of this interesting shrine. The oldest structure yet recognized in it still seems to be the curious apsidal altar (Fig. 32), described in our report of last year; and remnants of an enclosing wall, apparently belonging to the same early phase of Troy VIII, have been identified just to the south. Corresponding probably to a repair or remodelling of the altar, the precinct was enlarged southward, a new and higher wall being built to enclose it. The new wall, partly curving and partly straight, is pierced by a rectangular opening for drainage, and its well-finished outer face shows that the ground level here lay much below that inside. The wall has been



FIG. 30.—HOUSE OF TROY VIII



FIG. 31.—SMALL ROOMS OF HOUSE OF SEVENTH SETTLEMENT



FIG. 32.—APSIDAL ALTAR OF TROY VIII



FIG. 33.—TERRACE WALL IN PRECINCT

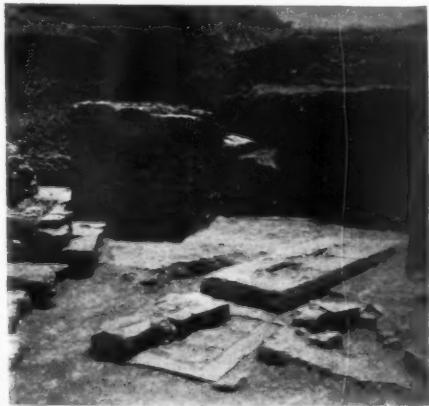


FIG. 34.—FOUNDATIONS OF TWO SMALL ALTARS



FIG. 35.—WALL OF TROY VI IN A 4-5

followed westward to a corner, where it turns sharply toward the north. Along with local Trojan ware of Troy VIII, fragments of imported vases in early Corinthian style were found to help date this phase.

The entrance into the precinct was probably always at the southwestern corner, but owing to the frequent rebuilding of the enclosure, with only slight changes of level, the remains of the early gateways have been almost completely destroyed. However, four separate walls may be traced extending northward from the corner: one, in which there is an opening with three steps (Fig. 33), may have been built to support a low terrace, but the others are certainly successive precinct-walls, and there can be little doubt that the latest in the series (wall "B" on our plan) was also continued along the northerly side of the sanctuary, where a piece in the same style of masonry may still be seen, passing obliquely under the massive Hellenistic retaining wall. What modification the altar had suffered during these successive periods we cannot yet say with certainty, but the ground-level had been steadily rising, and the old apsidal structure must at length have been completely buried. The continuity of the sacrificial cult was maintained, however, by the construction of a pit lined with stone slabs which led down to the original altar. This pit, filled with gray ashy earth of the same character as that filling the apsidal altar itself, and presumably contemporary with the latest in the series of the enclosing walls we have just mentioned (possibly to be assigned to the fifth century), was later incorporated in the rectangular limestone foundation of the first Hellenistic "podium."

With this structure it is clear that we come, early in the Hellenistic Age, to a new era in the history of the sanctuary. The whole precinct was rebuilt on a larger scale than before. It was now laid out as a square, measuring 14.30 m. on a side. Although the easterly portion is still unexcavated and the southerly wall has been almost totally demolished, it was possible to determine the position of all four corners. The surrounding wall was constructed of well-cut blocks, laid in an alternating series with three courses of paired orthostates set back to back above the euthynteria, then a low binding course, then orthostates again. Both faces of the wall were meant to be visible. A small gateway, projecting southward at the southwest corner, provided access. A new altar was erected at the center of the precinct (but not aligned with the latter) in the form of a stepped podium of limestone blocks (Fig. 32), care being taken to preserve the old sacrificial pit which maintained the connection with the more ancient altar. The superstructure was probably of *poros*, though none of it has been found. Against the precinct-wall at the south a deep well was dug to provide water; lined with shaped stones to hardpan, then hewn in the rock to a total depth of 20.30 m., it had a crowning curb formed of four well-fitting rounded blocks.

Exactly how long the sanctuary continued to stand in this state we are yet unable to say, but still in the Hellenistic period changes began to be made. The north wall was transformed into a monumental retaining wall, its face being reconstructed with larger and heavier blocks of hard limestone, reinforced behind by massive blocks of soft limestone, not meant to be seen. Only the euthynteria and some original courses spared at the northwest corner have survived to betray the

character of the earlier wall. Perhaps it was at the time these changes were effected that the altar was also remodelled, its superstructure being replaced in marble. That the marble blocks were dressed and that their mouldings were carved here on the spot seems to be indicated by a layer of fine marble chips noted in the fill just below the new ground-level. It is also possible that we should assign to this period a new well, dug a few metres to the southeast of the other; the shaft is actually just outside the south precinct-wall, but the stone platform surrounding it rests in part on the wall, and rises almost like a tower, high above the ground outside, while it was clearly accessible from inside the sanctuary. This well had a depth of 21.60 m. and, owing to the protection afforded by a covering slab, it was only half full of earth, stones and other débris. The well yielded vast quantities of animal bones, numerous fragments of plain water-jars, six jugs being more or less nearly intact, and some further potsherds, all apparently of Hellenistic date.

Another turning point in the history of the sanctuary was marked by the partial destruction of the northern retaining wall. It seems to have been chiefly the upper part of the wall that was affected, probably a parapet-like construction in which much of the material of the earlier precinct-wall had been re-employed. As mentioned in our report for 1936, the stones had fallen into the precinct, where they lay roughly in rows presumably corresponding to their courses. What physical effect this accident had on the altar itself is not clear, but it appears to have been followed at once by a complete reconstruction of the sanctuary. The ground-level was now raised ca. 1.50 m. by a fill of débris; a new rectangular foundation of soft limestone was built farther to the west, being laid directly over the earlier precinct wall, and to it was transferred the marble superstructure of the altar, some of the blocks of which probably required slight reworking to be fitted into their new places. The well in the precinct was built up in three courses of roughly joined stone blocks to the new level, to which the other well with its high platform was conveniently adjusted. And at the same time, as we have already mentioned, a great theatrical stand of seats was erected to the northwest, looking down on the open space before the altar. For this period, representing the last phase in the long history of the sanctuary, no precinct-wall has been found. The exact date of the final reconstruction is still to be determined, although we were led by the evidence available last year to assign it provisionally to the end of the first century B.C.

Some time after the destruction of the first Hellenistic precinct a huge stone drain was built, utilizing as its floor the top of the foundation of the eastern precinct-wall. What specific purpose was served by this drain we have still no means of knowing, and it has not yet become clear to what exact period its construction must be assigned.

No fresh evidence has come to light to identify more closely the cult which had its seat through so many centuries on the southwestern slope of the citadel, but that the whole region was one of traditional sanctity is indicated by the discovery on a lower terrace just to the south of our sanctuary of another nameless temenos, which likewise seems to have subsisted through several periods. The remains uncovered comprise the foundations of two small altars of early Hellenistic date (Fig. 34, p. 589), and portions of the eastern and western enclosing walls, which appear

to have been built in Roman times. It was here that a mass of terracotta figurines, mentioned in our report for 1936, was found; we have still to determine whether they are to be associated with the upper or the lower shrine. This and many other problems can only be solved by further careful study and investigation, but the foregoing summary of the history of the shrine may serve to show how much knowledge has already been won by the patient labor of Miss Rawson and Mr. Hill.

During our campaigns of 1934 and 1935 Dr. F. W. Goethert undertook an extensive exploration at the northwestern angle of the acropolis in squares A 4-5, with the primary object of finding and tracing the fortification wall of Troy VI (if it existed) beyond the point to which Dörpfeld had exposed it. In his first season he speedily discovered that the wall already known ended, in square A 5, with a finished face, which had been concealed by a buttress-like addition of later date. Dr. Goethert, concluding that the finished end of the wall had probably formed one side of a gateway, opened up a wide area toward the north, in the hope of revealing the other side of the gate and the continuation of the wall. After removing an enormous superficial accumulation of dump from Schliemann's excavations, however, he encountered an immense fill of Hellenistic débris, which spread over the greater part of A 4-5 to a tremendous depth. Most of the labor of two campaigns was devoted to the task of carrying away this unproductive earth, and Dr. Goethert's meagre recompense was to find, at the extreme north, an undisturbed terrace, occupied by the remains of a habitation of Troy V, beside which stood an isolated section of a massive wall built in the style of Troy VI; and, almost at the extreme south, the walls of a house of the Sixth Settlement, supported, as it were, on a small pinnacle of untouched early deposit, in the midst of the Hellenistic fill. The bottom of this fill had not yet been reached at the conclusion of the season of 1935.

Dr. Goethert was unable to return in 1936, and it was not until the present year that we found it again possible to resume work in A 4-5, with Mr. Boulter in charge of operations. He, too, was obliged to spend the major part of the campaign in superintending the removal of dump, but ultimately our efforts were rewarded and, to our gratification, we found that the intrusive deposit rested on the substantial remains of the great fortification wall of Troy VI, which we had so long been seeking.

The portion of the wall preserved (Fig. 35, p. 589), still standing to a height of seven courses, is only the substructure. Having a thickness of 5.50 m. to 6.00 m., and founded on a bed cut in native rock, it is built of large, roughly squared blocks of hard limestone, with smaller stones used to fill the interstices. A gap 1.50 m. wide separates the newly found section of the wall from the old, and it is clear that there was a gateway here; but, as the foundations projected somewhat from the face of the wall, the gate-opening must have been considerably wider than the gap. From its southern end, where the bed-cutting lies at 21.30 m. above sea-level, the new wall runs in a north-northwest direction some 8 m., then, after an angle, it proceeds 10 m. farther in a north-northeasterly line, this whole section being founded on native rock. From this point it mounted steeply, its footing being adjusted not on rock, but on step-like cuttings in a hard-packed stratum of Troy V. A short piece, some 2.50 m. long, has been completely destroyed before we come to the section

discovered by Dr. Goethert, rising against the terrace of Troy V. Bed-cuttings may be traced eastward across this terrace, 6.50 m. wide, and one large, characteristic block still lies in the place prepared for it, at 27.65 m. above sea-level. Still farther eastward, in square A 4, yet another section was found, with four courses still preserved *in situ*, the lowest resting at 28.90 m. above the sea; and beyond it massive blocks hewn in the style of Troy VI are seen to continue eastward as far as the edge of Schliemann's Northwest Trench, although they have been for the most part so disturbed that the exact line of the wall can no longer be determined.

Our long labor in this quarter had thus restored to us some 35 m. of the fortified circuit of the Sixth Settlement. The new piece is of no little importance, for we can follow the wall as it rises from the northwestern corner of the enceinte high up to the top of the plateau and begins its eastward course across the northern side of the citadel. There can be no doubt that it once continued all the way across to the Northeast Tower, but, apart from the short section of foundation uncovered this season by Mr. Sperling in square G 3, such remains of it as were not destroyed in the multitudinous disasters and reconstructions of the acropolis in ancient times were doubtless demolished by Schliemann, when he relentlessly carried his excavation down to the level of the "Second City".

The level of the road passing through the newly found gate must have been at ca. 27.00 m. above sea-level. Like the Northeast Tower, the northwestern corner of the wall thus had tremendously deep foundations. It was built in the best traditions of Sixth City architecture, in the magnificent manner of the South Wall, in striking contrast to the inferior style and workmanship of the section running through squares A 6 and 7 between our new gateway and Gate VI U. Why two adjacent parts of the wall should differ so greatly in character has not yet been satisfactorily explained. At any rate it is clear that the northwestern corner of the fortification, if not meant to be an exact counterpart of the great Northeast Tower, balanced it worthily, and with its lofty, sloping face, and its angular shape, it must itself have presented a massive, tower-like appearance when viewed from the outside.

Its outer face projects considerably westward from the line of the wall to the south of the gate (Fig. 36), and there is some evidence to suggest that the projection was designed to command the approach to the entrance, for a roadway seems to have ascended from the south along the wall, to turn sharply at right angles into the gateway. A sturdy wall, which may have supported the western side of this ramp, was uncovered by Mr. Boulter, but superposed house-walls, containing orthostates in the style of VIIb, and a later construction, apparently dating from the time of the Eighth Settlement, have so badly disturbed the earlier remains that we cannot be certain of details. Apparently in its original position, at the north end of the presumable retaining wall, where it must have been backed against the projecting angle we have mentioned, stands a huge block of limestone (Fig. 36), almost exactly like the well-known pillars set along the face of Tower VI i, beside the South Gate. Its significance could not be more closely determined, but it seems likely that we have here, too, a religious monument of some kind belonging to the time of the Sixth Settlement.

Mr. Boulter's researches made it clear that the immense deposit of Hellenistic

débris had been brought to fill a huge cavity which had been formed by ruthless quarrying into the Sixth City wall, in quest of building material. He was also able to determine with reasonable certainty the date of the depredation, for he observed that a neighboring section of the city wall of the Hellenistic Age was built to a great extent of large limestone blocks of the same character and of the same general dimensions as those still remaining in the foundations of the Sixth City wall.

When the Hellenistic débris had been completely removed, it became possible, although much of the evidence was lacking, to study the newly found wall in relation to the stratified deposit beside it. A sharply defined *Baugrube* to the west and the south showed that the wall had been laid in a broad trench, cut through an already existing accumulation. Mr. Boulter examined it and found that it com-

prised layers representing an early stage of Troy VI, as well as of Troy V and IV. After the construction of the wall and the filling of the *Baugrube*, a large pit had apparently been dug against the foundations. Considerable matter was burned in this hollow, leaving a thick, black carbonized layer, with charred bits of wood. The pit, filled again before the Sixth Settlement came to its end, contained quantities of sherds and animal bones, including a complete skeleton, probably of a dog.

The house of Troy VI, discovered by Dr. Goethert, lay in part over the *Baugrube* outside the wall. We thus see that on the west slope, as well as elsewhere, habitations of the Sixth Settlement were built outside the citadel.

FIG. 36.—WALL OF TROY VI FROM NORTH, SHOWING SIDE OF GATEWAY AND UPRIGHT PILLAR

In the northern part of the area were found remains of a thick wall, constructed of stone, with a superstructure of crude brick, and assignable to Troy V. It might be part of a fortification wall of that period, destroyed when the enceinte of the Sixth Settlement was built. Still farther north lay a massive circular pavement of large stone slabs, beside which was a deep narrow pit, dated by accompanying potsherds to an early phase of Troy VI. And, in conclusion, omitting some further items not without interest, it may suffice merely to mention some house-walls and an undisturbed floor-deposit containing much pottery, apparently of Troy IV or V, which Mr. Boulter discovered directly beneath the easternmost preserved section of the newly found Sixth City wall.

As in former years, much labor was devoted to the pottery, but although nine washers and menders were continuously employed throughout the season and the members of the staff participated in the task as much as their other duties permitted, we were not able to work over all the abundant material recovered. Many important series of sherds from the central part of the acropolis, from the excavation outside



the eastern walls in K 7-8, from the region of the South Gate and from F 8-9 are still awaiting examination, and some accumulations from 1936 have not yet been adequately scrutinized. We hope it may be possible in 1938 to do justice to all this material and to complete our detailed study of the ceramic history of the site, which is now so richly documented. In 1937, some 220 vases were entered by Miss Marion Rawson in our inventory of pottery, and our total collection of pots, more or less nearly complete, now exceeds 1000.

The catalogue of Mycenaean potsherds drawn up by Professor Karo has already been mentioned. The fragments from the cemetery of the Sixth Settlement, discovered by Miss Dorothy Rawson in 1934, number 133, and among them Dr. Karo has found no piece that he is willing to assign to a date later than about the middle of the 14th century B.C. From the "earthquake-layer," between House VI E and



FIG. 37.—SHERD OF EARLY HELLADIC WARE, TROY IV

the Sixth City fortification wall, 112 sherds have been recorded; and here, too, there is not one example that can be dated appreciably after 1350 B.C. Dr. Karo's study thus gives an independent and authoritative confirmation of our own conclusion that the Sixth Settlement came to its end before the close of the 14th century. These sherds are not all of uniform quality, nor are they of the same provenance: many of the pots represented were doubtless made at Mycenae, or at one of the neighboring centers; others may be of provincial manufacture; and a fairly large group obviously comprises local Trojan imitations.

An inventory was also begun of fragments belonging to imported vessels of earlier periods. Middle Helladic Matt-painted ware is exemplified by only 4 sherds, all found in the deeper layers of Troy VI. Early Helladic pottery (Fig. 37) is much more richly represented, including remains of many imported pieces as well as of much that can be regarded as a local imitation or adaptation. We have already catalogued 477 Early Helladic items. This material occurs fairly regularly in all the layers from the latest phases of Troy I to Troy V; and it thus offers a strong corroboration of our view that the Early Bronze Age at Troy comes to its end with the

Fifth Settlement. A transitional phase between Troy V and VI and the early stages of the Sixth Settlement correspond to the Middle Bronze Age; and to the Late Bronze Age we must attribute the later part of Troy VI along with VIIa and VIIb.

Miscellaneous objects of gold, silver, copper, bronze, lead, stone, bone, vitreous paste and terracotta, found in the excavations of 1937, were catalogued by Miss

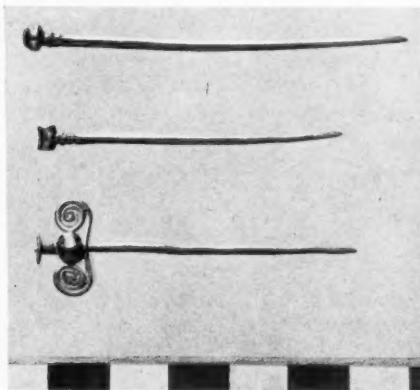


FIG. 38.—THREE GOLD PINS

Dorothy Rawson to the number of 784. Among the pieces of outstanding interest may be mentioned 3 gold pins (Fig. 38), many fiddle shaped idols of stone, bone and terracotta, a crude anthropomorphic terracotta figure of Troy VII b (Fig. 39), some good "brush-handles" of clay, several stone moulds for the making of paste ornaments, and a smooth disc of white marble; but for artistic merit chief place is probably taken by the handsome horse's head in terracotta discovered by Mr. Semple in area K 7-8 (Fig. 25).

The numerous terracotta figurines, found by Miss Dorothy Rawson in 1936 outside the sanctuary in A 8, were studied and inventoried by Professor Karo, who judged some 102 pieces worthy of cataloguing. They form an unusually homogeneous group, comprising mainly figures of draped standing or dancing girls of several different types, with only a few examples that might represent goddesses or cult images. The date of the deposit can be fixed to the 3rd or 2nd century B.C., but no evidence was obtained to identify definitely the cult itself: Athena and Artemis can be excluded, but Hera, Demeter, Eileithyia or Aphrodite is possible.

The work accomplished by Mr. Gejvall deserves more than the passing reference given it at the beginning of this report. The animal bones and shells we have methodically collected from the outset of our excavations filled innumerable boxes, baskets and other containers, and every layer at Troy was represented more or less fully. Mr. Gejvall systematically examined this vast quantity of material, handling



FIG. 39.—ANTHROPOMORPHIC FIGURE OF TERRACOTTA, TROY VIIIB.

more than 150,000 bones; most of them were discarded after the relative frequencies had been recorded, but typical specimens and the better preserved significant pieces were kept, inventoried and numbered to a total of 5273. More than 20 species of quadrupeds were recognized, and Mr. Gejvall's study will give us a fairly complete record of the domestic and wild animals which were mainly utilized for food during all the successive periods of occupation of the site. A detailed discussion of this important evidence will find its place in the definitive publication we plan to devote to the results of our excavations at Troy. Here it may suffice merely to mention a few of the general conclusions. Sheep, goats and swine provided the bulk of the meat-supply from earliest times down to the latest. Wild deer were always eaten, in abundance from the time of the Second Settlement, but especially in the Third and Fourth. The horse makes its first appearance in Troy VI and is common in the following periods. In Troy VII large carnivora of the leopard family may be recognized, and the bear is represented. Throughout the whole of its history, but more particularly in the earlier epochs, the settlement seems to have depended greatly on sea-food, as we may conclude from countless shells of many species, bones of fish, and even claws of lobsters. Fowl likewise formed a considerable part of the diet in all ages, and many kinds of birds can be distinguished.

A rich supplementary collection of material made during the season of 1937 has provided another complete sequence of animal bones and shells which we have kept for future study as a check on the results already obtained.

In concluding this report I desire on behalf of the expedition to thank all the members of the staff for their unremitting, loyal, and understanding collaboration; our friends Mr. and Mrs. F. H. Bacon and Mr. and Mrs. Godfrey Whittall of Çanakkale, for much good counsel and aid; and Dr. Lee Foshay of Cincinnati, who has again contributed much to ensure our physical welfare. We are particularly grateful to the Government of the Turkish Republic which has generously permitted us to continue our excavations at the site of Troy; and we take pleasure in acknowledging our especial obligation to H. E. Saffet Arikān, Minister of Education; Dr. Hāmit Koşay, Director of the Department of Antiquities in the Ministry; Mr. Aziz Ogan, Director of the Museum in Istanbul; and Halil Alyanak, our Commissioner.

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THE ORIGIN OF THE ROMAN HOUSE

THE chief difficulty which presents itself in the investigation of the origin of the Roman house is the lack of actual evidence. We are continually forced to fall back on analogies from other countries and other types of buildings. It is, however, possible that a brief review of the evidence provided by the antecedents of the Roman house, found in Italy, may suggest a simpler form of approach to the problem.

Our most important item is, of course, the Pompeian house, which is guaranteed for us as Roman by Vitruvius' description,¹ and whose evidence is supplemented from the same author. We have here the fully developed Roman house. To see it in its earlier form, we must rely upon scantier material. Save for a few scattered examples, such as those found at Veii and Vetulonia, the houses found at Marzabotto are the only ones which show us a stage between the Pompeian house and the primitive hut. As to the latter, we are well informed both by the remains of actual dwellings showing the ground plans, and by the hut urns of Etruria and Latium, which give us a picture of the superstructure. This is all the material from which we can obtain evidence for the actual form of the house, unless we supplement it by analogies with tombs and temples.

Let us analyze the material thus obtained. The Pompeian house, considered without the late addition of the peristyle, consists essentially of a main central area, the atrium, regularly surrounded by rooms, of which the most important, the tablinum, is placed opposite the entrance. The tablinum is flanked by two rooms which are entered from two recesses at right angles to the main axis of the atrium, described as "alae." The atrium is covered, but an oblong aperture is left in the middle of the roof. Vitruvius tells us that the roof can be built in five different styles, Tuscanicum, tetrastyle, Corinthian, displuviate, and testudinate.² The Tuscanicum is the simple roof which slopes from the top of the main house wall down towards the centre of the atrium where the aperture is left. It is supported by four beams which, set in the walls, extend the whole width and length of the atrium. The tetrastyle and Corinthian are more elaborate variations of the same type, in which the roof achieves a greater span by the introduction of pillars. The displuviate is the reverse type in which the four-sided roof slopes outwards and leaves the aperture at the peak. In the testudinate the atrium is covered by an ordinary pitch roof. We are assured of this fact not only by the obvious meaning of the name but by Varro's description.³

In the houses at Marzabotto it is impossible to discover any regular plan.⁴ They appear to consist of a conglomeration of rooms, irregularly grouped around a courtyard. At Vetulonia we have clear examples of the courtyard type.⁵ At Veii, however, the few houses so far published appear to be simple one- or two-room constructions, very similar to the simple huts.⁶

This earlier material, then, reveals two types of house, the courtyard type, with rooms irregularly disposed around a central open area, and the closed unit, consisting of one or two rooms. In each type one element of the characteristic Roman house is

¹ VI, 3. ² Vitruvius, VI, 3.

³ *De Lingua Latina*, V, 161. ⁴ *Mon. Ant.* I, pls. I, V, VI.

⁵ *Not. Scav.* 1898, pp. 82 ff.

⁶ *Not. Scav.* 1922, p. 381.

missing, either the atrium or the regular arrangement of the rooms. Our problem is to discover how these two elements were included together in the Roman house.

It has often been stated that the house plan found at Pompeii is a combination of the old Italic house (represented by the hut urn) and the Etruscan house. The elements of which the final plan is composed are, however, attributed differently to the two sources by different authorities. Carrington, for example, maintains that the atrium represents an original Italic courtyard, surrounded by individual huts which developed into connected rooms.¹ Patroni,² followed by Boëthius,³ interprets the tablinum as representing the original hut and the atrium as derived from a fenced-in courtyard in front of the hut. This courtyard, they maintain, was later remodeled by the Etruscans into the more elaborate atrium. Boëthius emphasizes the invariable arrangement of the tablinum and the two rooms which flank it. He compares with this the tripartite arrangement of the chambers in some of the Etruscan tombs, such as the Tomba delle Sedie. On the analogy of this form and of the triple cella which is said to be characteristic of the Etruscan temple, Boëthius claims the group of three rooms as the Etruscan contribution to the Roman house. The resemblance between the three rooms and the liwan type of house found in the east is emphasized by Gjerstad⁴ and Müller,⁵ who see in it a possible link between Italy and Asia, to be attributed to the Etruscans.

There is one objection to all these theories, ingenious as they are. It is difficult to imagine that a plan which presents so unified an appearance and remains unchanged over such a span of time as the plan of the Pompeian house could be the result of an arbitrary combination of unrelated elements. Had this been so, one might have expected more variations in the plan, due to different methods of achieving the combination in different cases. The Pompeian plan suggests rather an organic whole which developed independently from a simple origin.

A more specific objection to the theories cited above is the problem which they raise as to the construction of the roof. The roof of the Pompeian house appears, on the evidence found at Pompeii and that of the famous model from Chiusi, to have been somewhat uncommon. The atrium was roofed in any of the five ways referred to above, but the surrounding rooms were covered by a hip roof, built against the inner wall of the house which enclosed the atrium. It is difficult to explain this roof on the basis of either Carrington's or Patroni's theory. The Italic hut is covered with a pitch roof, built with a ridge-pole. It would be impossible for this to develop naturally into an impluviate roof. On the other hand, if the atrium was originally an open courtyard, how are we to explain the hip roof of the side rooms?

It is true that we have in the Roman house such a variety of elements that they cannot logically be explained without assuming a combination of types somewhere in the course of its development. Is it, however, necessary to assume that this combination was concerned with the ground plan, which, as I pointed out above, seems to be a unit? Is it not possible that the secret of the combination lies in the diversity of ways in which the roof of the house could be built? The co-existence of the im-

¹ *Antiquity* 1933, p. 152. ² *Athenaeum* VII, 1929, pp. 525 ff. ³ *A.J.A.* XXXVIII, 1934, pp. 158 ff.

⁴ *Corolla Archaeologica Principi Hereditario Regni Sveciae Adolpho Dedicata, Acta Instituti Romani Regni Sveciae* II, 1932, pp. 159 ff. ⁵ *A.J.A.* XXXVI, 1932, pp. 415 ff.

pluviate and testudinate roofs suggests two parallel systems derived from different sources, either of which can be used equally conveniently with the ground plan derived from one of those sources.

To carry out such a supposition we must assume that the ground plan came from one of the two plans that we have seen existing simultaneously in the period before the floruit of the Pompeian house, that is, either from the courtyard plan or from the single unit, which would, in all probability, have a pitch roof. One piece of evidence in particular inclines me to favor the latter type. The word atrium is applied not only to the *cavum aedium* or central room of the private house, but also to buildings of a public character, such as the Atrium of the Salii and the Atrium Libertatis.¹ In the former of these, at least, religious ceremonies were carried out, and I find it difficult to believe that it was anything but a free standing roofed hall, such as the original house atrium would have been if we assume it to have developed from the Italic single-room house. If the atrium had originally been a courtyard, the parallel building would have to be something in the nature of a free standing cloister, which seems improbable.

Let us then assume that the house was originally a single room such as we see in the hut urns. How would such a building be enlarged? The most natural system would be to build a lean-to at the back of the house, the sides of which would be continuations of the main side walls while the roof would be a hip roof supported by the back wall of the main room. Here we have in essence the tablinum, probably the private quarters of the head of the household, such as is described in the Homeric house. Other rooms could be added in the same way, as needed, along the sides of the main room, which could still be adequately lighted by windows in the eaves at each end. This would, however, leave an empty space on each side of the "tablinum" between it and the first room on each side. If additional rooms were built in each of these spaces, they would be inaccessible except through the side rooms. If, however, a small section of each side room at that end were cut off and a narrow corridor left, the end rooms would be free of access and we would see the prototype of the ala. The plan thus developed would be exactly like the plan of the Pompeian house and the process of growth from the inside out would explain the rigidity with which the plan was kept.

The courtyard house would have no such fixed arrangement of rooms, because there would never have been the same problem of development. The resulting plan would, however, be quite similar to the other, and it seems probable that the similarity would lead to the final adoption of the Pompeian plan, because, to those who inhabited the Italic hut and its descendant, the plan would have become a fixed idea, whereas the inhabitants of the courtyard house would be comparatively indifferent to the arrangement of their rooms, and would give way to the stronger conviction.

The courtyard house would, however, have a contribution to make from a different quarter, where there was conviction, namely the roof. The covering of the courtyard can be explained partly by the Italian climate and partly by an increasing need for space. In the examples of the simple court cited above, the central area was

¹ See Platner-Ashby, *Topographical Dictionary of Ancient Rome*, under these headings.

probably not covered. Later, however, we find that it is roofed in, when the Pompeian house has become the characteristic urban dwelling of the wealthier classes. The open court could hardly be used for domestic purposes as conveniently as the central room of the other type. Therefore, when the development of urban life restricted the area available for each house, the inner court would be covered so that it could be used as a central room, such as could be seen in the Italic house. The type of roof, however, would be determined by no fixed rule based on a long development; it could be carried out in any way that suited the builder, subject only to two conditions: that it preserve as much as possible the courtyard nature of its original form, and at the same time provide an adequately protected central room. We have here an explanation of the variety in roof construction found in the Pompeian house. The impluviate and displuviate were the two obvious ways of doing it, but the impluviate was the more efficient as Vitruvius tells us.¹ The testudinate was simply the old Italic ridge-pole roof. Why then was this latter type almost entirely discarded, while the ground plan that went with it spread even into the courtyard type?² Probably largely for practical reasons. The impluviate type of roof provides much more light and the increased discomfort of the added cold would probably not have bothered the Italians of that day, if they were anything like their modern descendants. Moreover in a crowded area the open atrium might provide a pleasant substitute for a real garden, for those who could not afford anything more extensive.

The Roman house would, then, according to such a theory, be a blend of the more essential elements of two different types of house, which, existing simultaneously, had sufficient likeness to suggest the possibility of such a combination. One of these we may certainly call the Italic house, because of its close resemblance to all we know of that dwelling. Whether we may attribute the courtyard house to the Etruscans is another question.

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¹ Vitruvius VI, 3.

THE JUDGMENT OF PARIS ON ETRUSCAN MIRRORS

DR. ARTHUR SCHNEIDER has listed and analyzed the representations of the Judgment of Paris in Greek vase-painting.¹ Miss Harrison has made several additions to this list,² and a complete bibliography of the subject has been published by Pfuhl.³ Miss Harrison recognized four types of representation of this subject on vases: (A) Three goddesses in procession, preceded by Hermes. Athena alone of the goddesses is characterized, always appearing second. This type is confined to Attic black-figured vases. The pace at which the procession moves is sometimes ludicrously rapid (Fig. 1). In the second type, (B), the procession, still composed of the three goddesses preceded by Hermes, has reached the arbitrator, Paris. Zeus had declined to act as a judge in this affair, well knowing that the narrow confines of Olympus would be far too cramped to accommodate him if he awarded the palm for beauty to any one of the three. There is some evidence that he tried unsuccessfully to induce Apollo to act in his stead.⁴ Paris seems also to have displayed a considerable amount of intellect (for him), for he appears to wish earnestly to avoid the honor. He is represented as endeavoring to flee, and remains only when compelled by Hermes. Sometimes Hermes is forced to wrestle with him to induce him to remain. With the single exception of the red-figured stamnos (E445) in the British Museum,⁵ illustrated here (Fig. 2), this type also is confined to black-figured vases.

In type C Paris has become reconciled to his fate. He sits on the slope of Ida; before him stand the goddesses—usually three figures, but sometimes only two are shown. The procession motif is still preserved, but Paris no longer attempts to escape. He has assumed the character of a judge before whom the goddesses appear. The order of the goddesses is no longer fixed, and it is significant that their identity is no longer clearly indicated. This form of the myth is, with two exceptions,⁶ found only on red-figured vases (Fig. 3).

In type D the procession idea has entirely vanished. Paris is usually the center of the scene, Hermes is often present, the three goddesses are frequently accompanied by quite meaningless and inappropriate figures who merely fill space (Fig. 4).

Oberlin College has recently acquired the fine Etruscan mirror illustrated in Gerhard's *Etruskische Spiegel*, V, Plate 98, 2. (Fig. 5). A brief analysis of this myth as it appears on Etruscan mirrors may be appropriate.⁷

Gerhard reproduces⁸ twenty-two mirrors that illustrate this scene. Twelve of these⁹ show the three goddesses and Paris. Three of them¹⁰ have five figures. In two of these¹¹ Hermes is a fifth figure in a Judgment of Paris scene. In the other¹² Hermes stands in the center between two winged figures; Paris is at the extreme left and

¹ *Der troische Sagenkreis in der ältesten griechischen Kunst*, Leipzig, 1886.

² *J.H.S.* VII, 1886, pp. 196 ff. ³ Ernst Pfuhl, *Malerei und Zeichnung der Griechen*, I, p. 326.

⁴ Harrison, *op. cit.*, p. 210.

⁵ Illustrated, *C.V.A.*, Great Britain, British Museum, III, pl. 20, 5a, 5b, 5c, 5d.

⁶ Harrison, *op. cit.*, p. 207.

⁷ Welcker, *Annali*, 1845, p. 206.

⁸ *Op. cit.*, II, pls. CLXXXIV-CLXXXVII; IV, pls. CCCLXVIII-CCCLXX; V, pls. XC VIII-CV.

⁹ *Op. cit.*, II, pls. CLXXXIV-CLXXXVII; IV, CCCLXVIII, CCCLXIX, 1 and 2; V, XC VIII, 2, CII, 1, CIV, 1 and 2, CV, 1. ¹⁰ *Op. cit.*, IV, pl. CCCLXX; V, pls. C, CI.

¹¹ *Op. cit.*, V, pls. C, CI.

¹² *Op. cit.*, IV, pl. CCCLXX.



FIG. 1.—HERMES AND THE GODDESSES



FIG. 2.—STAMNOS E445, BRITISH MUSEUM. HERMES WITH THE THREE GODDESSES APPROACHES PARIS



FIG. 3.—PARIS AND THE THREE GODDESSES
(Gerhard, A. V., III, Pl. CLXXVI)



FIG. 4.—ATTIC HYDRIA AT KARLSRUHE. JUDGMENT OF PARIS
(Furtwängler-Reichhold, *Gr. Vas.*, Pl. 30)



FIG. 5.—ETRUSCAN MIRROR, OBERLIN COLLEGE
(Gerhard, *Etr. Spiegel*, V, Pl. XCVIII, 2)



FIG. 6.—ETRUSCAN MIRROR. JUDGMENT OF PARIS
(Gerhard, *Etr. Spiegel*, III, Pl. CLXXXIV)

Aphrodite at the extreme right. The other seven mirrors show interesting variations which will be alluded to later.

Turning to the twelve mirrors which show the conventional scene, some interesting facts are apparent. Naturally the processional idea is entirely absent. Nor does Paris show any reluctance to assume his fatal rôle: in fact, he seems to accept the part complacently—not to say blithely. Sometimes the four figures all stand, but in the better mirrors the two outside figures are seated—the group thus more easily accommodating itself to the circular field. On the twelve mirrors eight combinations of the figures occur. From the left, three mirrors¹ show Paris, Hera, Athena, Aphrodite; two,² Aphrodite, Hera, Athena, Paris; two,³ Aphrodite, Paris, Athena, Hera. The other five show the following arrangements: Aphrodite, Hera, Paris, Athena;⁴ Paris, Aphrodite, Hera, Athena;⁵ Aphrodite, Athena, Paris, Hera;⁶ Aphrodite, Paris, Hera, Athena;⁷ Athena, Aphrodite, Hera, Paris.⁸ It will be evident that the artists have endeavored to indicate the verdict of Paris by emphasizing his connection with Aphrodite. In four of the mirrors⁹ Aphrodite is placed next to Paris, as in the Oberlin copy. In five others¹⁰ she is opposite him, leaning toward him in confident expectation across the other two figures (Fig. 6). Of the remaining three mirrors, one is a poorly executed parody;¹¹ in the other two the order is: Aphrodite, Hera, Paris, Athena¹² and Athena, Aphrodite, Hera, Paris.¹³ Even in these the connection between Paris and Aphrodite is clearly indicated. In the former, Aphrodite lays her hand on Paris' shoulder; in the latter she stands forward, nude, in the foreground facing Paris, while Hera, who stands between, is kept in the background.

The identity of the goddesses is usually clearly indicated by attributes, but when such identification fails, the headdress is often a safe guide. Hera and Aphrodite frequently have the same crown or headdress, and so do Athena and Paris;¹⁴ Aphrodite and Paris almost as often,¹⁵ while Hera and Athena are never represented with similar headdresses, nor are Hera and Paris.

Paris and Aphrodite are often partially or entirely nude, but such a representation of Athena occurs but once,¹⁶ and Hera is nude only on the mirror now in Oberlin.¹⁷

The two mirrors¹⁸ on which Hermes appears in addition to the conventional four figures conform to the usual pattern. Hermes is not leading a procession, but stands in the center of the group, in one instance next to Paris, in the other between Athena and Hera. Paris and Aphrodite are placed side by side in one, in the other they occupy the extreme right and extreme left. The same conventions of drapery and headdress are employed.

Of the other seven mirrors,¹⁹ only two²⁰ are really illustrative of this myth. In one

¹ Welcker, *Annali*, 1845, II, pl. CLXXXVI; V, pl. CCCLXIX, 1 and 2.

² *Op. cit.*, II, pl. CLXXXIV; V, pl. CII, 1. ³ *Op. cit.*, V, pls. CIV, 1; CV, 1.

⁴ *Op. cit.*, II, pl. CLXXXV. ⁵ *Op. cit.*, V, pl. XCIII, 2. ⁶ *Op. cit.*, V, pl. CIV, 2.

⁷ *Op. cit.*, III, pl. CLXXXVII. ⁸ *Op. cit.*, IV, pl. CCCLXVIII.

⁹ *Op. cit.*, II, pl. CLXXXVII; V, pls. XCIII, 2; CIV, 1; CV, 1.

¹⁰ *Op. cit.*, III, pls. CLXXXIV, CLXXXVI; IV, pl. CCCLXIX, 1 and 2; V, pl. CII, 1.

¹¹ *Op. cit.*, V, pl. CIV, 2. ¹² *Op. cit.*, II, pl. CLXXXV. ¹³ *Op. cit.*, IV, pl. CCCLXVIII.

¹⁴ Four times in each instance on these twelve mirrors. ¹⁵ Three times.

¹⁶ *Op. cit.*, II, pl. CLXXXV. ¹⁷ *Op. cit.*, V, pl. XCIII, 2. ¹⁸ *Op. cit.*, V, pls. C, CI.

¹⁹ *Op. cit.*, IV, pl. CCCLXIX, 3; V, pls. XCIII, 1; XCIX, 2; CIII, 1 and 2; CV, 2.

²⁰ *Op. cit.*, V, pl. CIII, 1 and 2.

of these Hermes appears with the three goddesses, as he does in the earliest representations on vases, though not in the processional form; on the other, Hermes and Paris are shown at the extreme left and right with Athena and Hera between them. The other mirrors, though conforming in composition to the judgment scene, have nothing to do with that legend. One¹ shows Zeus, Hera, Hermes, Athena; another,² Paris, Aphrodite, Athena, Adonis; a third,³ Hermes, Paris, an unidentified male figure and Hera; on a fourth,⁴ three women are making their toilet in the presence of a youth.

The Etruscan mirrors, therefore, carry the myth one step beyond vase-paintings

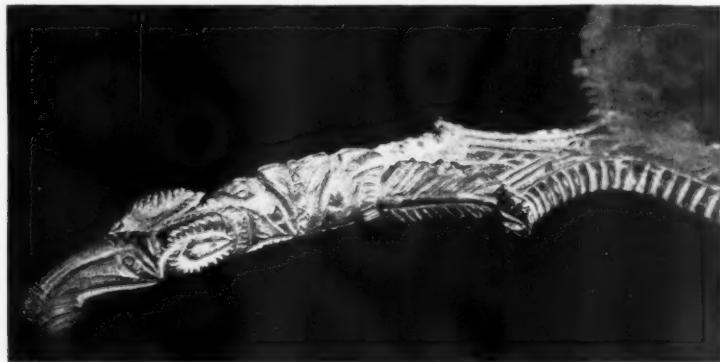


FIG. 7.—HANDLE OF ETRUSCAN MIRROR AT OBERLIN COLLEGE

by representing not only the scene of the Judgment of Paris, but by indicating Paris' verdict. Among these mirrors the specimen at Oberlin is not only remarkable for its delicate drawing and its elaborately carved handle (Fig. 7), but it is a unique representation of the Judgment of Paris in two respects: on it alone Hera appears nude and on it alone the figures are identified by inscriptions: ELAXSN TRE (Alexander Paris), TVRAN (Venus, Aphrodite), VNI (Juno, Hera) and (ME)NRVA (Minerva, Athena).

LOUIS E. LORD

ATHENS, GREECE

¹ *Op. cit.*, V, pl. XCIII, 1. ² *Op. cit.*, V, pl. XCIX. ³ *Op. cit.*, V, CV, 2. ⁴ *Op. cit.*, V, CII, 2.

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ARCHAEOLOGICAL NEWS AND DISCUSSIONS¹

NOTES ON RECENT ARCHAEOLOGICAL EXCAVATIONS SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

DAVID M. ROBINSON, *Editor*
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NECROLOGY

Dr. Jean Paul Richter, who was an authority on Italian art, died at Lugano on August 25 at the age of 90. Born at Dresden on January 7, 1847, the son of Karl Edmund Richter, a distinguished clergyman of the Lutheran Church, and Frédérique Mook of Lorraine, he studied theology at Leipzig. On a journey to Italy in 1869 his interest in Christian archaeology was roused, and he determined henceforth to devote himself to the study of art history. During these studies he became the friend of Senator Giovanni Morelli (Lermoliff), whose method he admired and followed. Both held that historical, documentary, and traditional knowledge respecting works of art was only of secondary importance as compared with the evidence to be derived from the study of the pictures themselves, and that the study of the individual parts and forms was of the highest importance, for they were the outward and visible seal of an artist's character stamped upon his work.

During his student days Dr. Richter travelled extensively in Italy and the Near East, and incidentally did work for Karl Baedeker, the founder of Baedeker's guide books. Subsequently he settled in London, but lived part of the year in Italy. His first book was on the mosaics of Ravenna. In 1880 he published a small biography of Leonardo da Vinci, which then led to his "Literary Works of Leonardo da Vinci" (1883), which established his reputation. Other works were "Italian Art in the National Gallery" (1883); "Quellen der Byzantinischen Kunsts geschichte" (Vienna, 1897); "Lectures on the National Gallery" given at the Royal Institution (1898); and "The Golden Age of Christian Art," written in collaboration with Alicia Cameron Taylor and dealing with the mosaics of Santa Maria Maggiore (1904).

Dr. Richter was also a collector and acted as adviser in the formation of collections. He was the fortunate discoverer of several masterpieces, such as Giorgione's portrait of a young man, now one of the treasures of the Kaiser Friedrich Museum in Berlin. He helped Dr. Ludwig Mond in the formation of the Mond Collection, the most important part of which was bequeathed to the National Gallery. A catalogue in two volumes compiled by Dr. Richter appeared in 1910. The Hertz Collection, bequeathed to the Italian State and now in the Palazzo Venezia in Rome, was formed by him, and his catalogue appeared in 1928. He formed the Cannon collection of paintings of the Veronese School, which was recently presented to Princeton University by Henry W. Cannon, junior, in memory of his father. A catalogue containing Richter's detailed studies on Veronese Renaissance Art appeared in 1936.

Dr. Richter's last years were spent at Lugano, where he continued working to the last. When he died he had practically completed, with the help of his daughter, the revision of his "Literary

¹ The Department of Archaeological News and Discussions and of Bibliography of Archaeological Books is conducted by Professor DAVID M. ROBINSON, Editor-in-charge, assisted by Professor CARROLL N. BROWN, Miss MARY H. BUCKINGHAM, Professor ROBERT E. DENGLER, VLADIMIR J. FEWKES, Dr. HENRY FIELD, Professor JOHN W. FLIGHT, Professor HAROLD N. FOWLER, Dr. SARAH E. FREEMAN, Professor HENRY S. GEHMAN, BATTISCOMBE GUNN, Professor FRANKLIN P. JOHNSON, Professor ROLAND G. KENT, Professor F. B. KRAUSS, Dr. STEPHEN B. LUCE, Professor CLARENCE A. MANNING, Professor GEORGE E. MYLONAS, Dr. EUGENE PROSTOV, Professor ROBERT S. ROGERS, Professor JOHN SHAPLEY, Professor FRANCIS J. TSCHAN, Professor SHIRLEY H. WEBER, LOUIS C. WEST, Professor FRED V. WINNETT, and the Editors.

For an explanation of the abbreviations see Vol. xxxiv, p. 124, Vol. xxix, pp. 115-116.

Works of Leonardo da Vinci," a second edition of which is to appear shortly from the Oxford University Press.

Dr. George M. Whicher, professor emeritus and for twenty-five years head of the department of Greek and Latin at Hunter College, New York, died on November 2. He was born on July 29, 1860, at Muscatine, Iowa, the son of Stephen Emerson and Anna Meason Whicher. He was graduated from Iowa College, now Grinnell, in 1882 and received his master's degree there three years later. In the meantime he had studied at Johns Hopkins and later did post-graduate work at Columbia University.

Dr. Whicher's first teaching post was as Professor of Greek and German at Hastings College in Nebraska. In 1888 he became Classical Master at Lawrenceville School, Lawrenceville, N. J. Two years later he went to Brooklyn, where he was Professor of Greek and Latin at Packer Collegiate Institute. He held this post until 1899, when he went to Hunter College as head of the Department of Greek and Latin and as full professor of those languages.

Dr. Whicher was interested in archaeology and from 1918 to 1921 was president of the New York Archaeological Society. He also was general secretary of the Archaeological Institute of America, president of the New York Classical Club and of the Phi Beta Kappa Alumni of New York in 1917-18. In 1921 he was the professor in charge of the Classical School of the American Academy in Rome. He was an Officer of the Order of the Holy Redeemer of Greece.

Dr. Whicher's books included "From Muscatine," "Roman Pearls and Other Verses," "Sonnet Singing," "Amity Street," "Vergiliana," "On the Tiber Road" and "Roba d'Italia." He also edited the 1924 "Anthology of Hunter College Verse."

EGYPT

A Gold Comb or Pin Head from Egypt.—In the City Art Gallery of Manchester, England, is a small object of gold, measuring 4 x 3.6 cm., and weighing 3.48 grams, which consists of three free-standing figures on a low, oblong base with ornamented front. They represent Demeter, Persephone and Harpocrates. Demeter, with sceptre in the left hand, wears a corn wreath with two large ears standing up diagonally over her forehead, and Persephone, the central and taller figure, has her himation drawn up behind the head

and wears a stephane and polos. Harpocrates wears the double crown of Egypt and raises his left hand, wrapped in his mantle, to his mouth. The sculptural character of the drapery and the resemblance of the tracery on the base to jeweller's work suggest a date in the first half of the third century B.C., when the mixture of Hellenic with Egyptian religious forms was beginning. Demeter's prominent ears of corn may be reminiscent of the vertical plumes worn by Isis, mother of Horus-Harpocrates. The gesture of the latter figure, if interpreted by the Greeks as a sign of silence, must refer to the mystery cults of his two companions. (E. S. G. ROBINSON, *J.H.S.* lvii, 1937, p. 79.)

Excavations at Sesebe.—Archaeological investigations are being carried on at the site of the fortified town of Sesebe by the Egypt Exploration Society's Expedition to Nubia. An article on the excavation by the Director, Professor A. M. BLACKMAN, appears in *Ill. L.N.*, August 14, 1937, pp. 272-273. Three standing columns bearing reliefs of Sethos I, which rise above the débris, have always marked the site. In 1907 Breasted discovered that reliefs of Akhenaten had been erased. This increased the importance of an excavation on the site. The fortification wall has been traced; in each of the four sides was a gate. Along one side of a forecourt were three temples resting on a single substructure. They have unfortunately been used as quarries for later building material. Some fine fragments of reliefs and sculpture were found in the remains. Four sets of foundation-deposits were found *in situ* beneath the northwest and southwest corners of the substructure. Plaques and scarabs bear the name of Amenophis IV, showing that the building was erected before the fourth year of his reign when he changed his name to Akhenaten.

A small crypt was found in the foundations of the central temple. The walls were decorated with reliefs representing Amenophis IV with several deities. Both the occurrence of the crypt and the polytheistic representations are unusual. South of the temple are storehouses and part of the residential quarter. Numerous small finds included fragments of Mycenaean pottery.

PALESTINE AND SYRIA

Recent Discoveries at Atchana.—Excavations at Atchana, near Antioch in Northern Syria, which were begun last year under the auspices of the British Museum, have been continued with

great success. A report on some of the most recent discoveries by Sir LEONARD WOOLLEY is published in *Ill. L.N.*, October 9, 1937, pp. 604-605. A summary of the first report appeared in the *A.J.A.* xli, 1937, p. 120. Among the interesting finds in the early trial trench cut across the mound was the painted pottery. Further excavation has produced a large collection of fragments and some complete vases, including amphorae and goblets. The decorative patterns are linear and floral, generally in a creamy white on a dark ground, but occasionally in dark on light. Surface finds on the mound show that it was uninhabited after the twelfth century B.C. In the latest building found were Mycenaean sherds dating from the thirteenth or fourteenth centuries. In the same level were discovered some cuneiform tablets, two belonging to the Ras Shamra series. Painted pottery appears also in the next level, from the fourteenth to the fifteenth centuries. This period was ended by a complete destruction. Hittite seals were found with the pottery. The most extensive excavation was conducted in the fourth level, where the painted pottery first occurs. A house was found which was of typical Hittite construction. It had been destroyed suddenly and the contents of the storerooms were *in situ*. Some imported Cypriote ware will furnish good evidence for dating the local painted pottery found in the same context. Another building was also partially cleared. It had mud-brick walls, with polished basalt revetment at the bottom. The upper parts of the walls were either plastered or panelled in wood. One passed on entering through a colonnade. The bases for the columns are still in place. Magnificent small finds were made in the building; one, an ivory toilet box in the shape of a duck, is illustrated. More cuneiform tablets were also found there. These buildings are the oldest Hittite constructions yet found in Syria. The fourth level is dated in the sixteenth century B.C.

Et-Tell.—The masterly hand of PÈRE VINCENT is again evident in his careful analysis of the excavations conducted at et-Tell during 1933-1935 by Mme. Krause-Marquet. The site was occupied as early as the aeneolithic era, but its fortification dates from the beginning of the Bronze Age (early third millennium). A double rampart was erected: the outer wall, 2.50 m. thick, follows the crest of the hill; the inner wall, twice as thick, rests not on the rock but on a bed of beaten earth to allow for drainage and settling. On the northwestern part of the mound are the ruins of a palace, sanc-

tuary and fortress. The palace consisted of a large reception room, 20 x 6.50 m., surrounded on three sides by a corridor, 2.50 m. wide. Beyond this was a large walled courtyard. Père Vincent's reconstruction of the palace is quite different from that of Dussaud in *Syria*, 1935, pp. 347-349. The sanctuary comprised two rooms, one at a lower level than the other. The first, measuring 8.50 x 5.50 m., contained a semicircular niche in the southwest corner, where the flesh of the sacrificial victims was cooked, to judge by the animal remains. Around part of the room ran a bench on which a number of votive vases was found. A piece of carbonized wood, about 1.25 m. long, found on the floor, can scarcely be the remains of a roof-beam, as it is an isolated piece, but may be the remains of an *asherah*. The second lower room, about 8 x 7 m., contained another niche and an altar, also in the southwest corner. Many remains of offerings were found here as well as some badly damaged alabaster of the first Egyptian dynasties. A platform in the southeast corner was covered with cups. Along the west side were four chambers for the storing of offerings. Père Vincent warns against any comparison of this sanctuary with early Palestinian temples, for it may have been of the open-air variety. Traces of three periods of building appear on the site: the original fortification about 2900-2800 B.C., a restoration about 2600 following a fire, when the fortress and a new outer wall were added. About 2000 B.C. the site was destroyed and turned into a nameless ruin; it was not occupied again except for a short period during the Early Iron Age (ca. 1200-1050 B.C.).

Père Vincent contends that there is no contradiction between these archaeological facts and the Biblical record in *Joshua* 7-8. The site was already a "ruin" ('ai) when the Israelites captured it, although a later embellishment of the tradition has supplied it with a king. He thinks the forces of Bethel, and perhaps of some other neighboring towns, took up a position in "the Ruin" whose walls still presented a formidable appearance and there, at the head of the pass, awaited the invasion from Jericho. With the capture of "the Ruin," the fall of Bethel would naturally follow. Mention of this fact does not appear until *Judg.* i, 22-26, but it is evident from the break between *Josh.* viii, 29 and viii, 30 that it has intervened. (R.B. xlvi, 1937, pp. 231-266.)

Megiddo.—A report on the excavations at Megiddo by GORDON LOUD, Field Director of the

Megiddo Expedition of the Oriental Institute of the University of Chicago, is published in *Ill. L.N.*, October 16, 1937, pp. 655-658 and 684; included are two pages of photographs in color. During 1936-37 excavation was continued in areas tested during the preceding season, notably the north and east sections of the city. Several new levels were added to the stratification previously recorded, especially some dating in the Middle Bronze Period. In the northern section the palace, occupied during the fifteenth to the thirteenth centuries, was investigated. Five building periods can be distinguished, although, since there was never a complete destruction, there is very little change in floor-level or plan. The original foundations are in Stratum IX, dated 1350-1479 B.C. The last three periods occur in Stratum VII (1350-1150 B.C.). The destruction between the fourth and fifth buildings was more violent, which probably accounts for the fact that the builder of the last palace added a subterranean vault for his treasures. A magnificent collection of carved ivories was found there. They are described in *Ill. L.N.* October 23, pp. 708-709.

Another hoard of small objects was found under the floor of a room in the second palace. They may, however, have belonged to an occupant of the third building. The collection apparently represents gifts from Asiatic and Egyptian royalty. A few of the most beautiful pieces are: a gold bowl in the form of a shell; cosmetic jars of serpentine, with gold rims; a gold chain; a carved ivory tusk, banded with gold; lapis lazuli seals and beads; and an electrum ring.

In the eastern area under excavation private houses of earlier periods were cleared. In Stratum XVII, the Early Bronze Period of about 2000 B.C., the area was occupied by a public building. Private houses appear in Stratum XIII. They were small and built along irregular streets. Strata XI-IX belong to the Late Hyksos Period. Here is a definite city-plan, with straight streets crossing at right angles. Each of these three strata is characterized by a different burial custom. In XI family tombs of stone were built under the house floors; in X bodies were buried in simple graves; in IX several bodies were buried together in trenches. This period may be that of the final siege in 1479 B.C., when Megiddo was overthrown by Egypt under Thutmose III.

Nabataean Temple at Khirbet et-Tannur.—A report on the excavation of the Temple of Atargatis at Khirbet et-Tannur, by Dr. NELSON

GLUECK, appears in *Ill. L.N.*, August 21, 1937, pp. 298-300. An article on this temple was recently published in the *Journal* (cf. Arch. Notes, pp. 361 ff., of the present volume). There are a number of additional photographs of architectural and sculptural fragments in *Ill. L.N.*

Nabataean Inscriptions.—Three Nabataean inscriptions were discovered amid the ruins of the Nabataean temple at Khirbet et-Tannur. One is dated in the second year of Haretat IV (8-7 B.C.) and is apparently dedicated to a divinity named *Râs 'Ain* of *el-La 'abân*. But *Râs 'Ain* is a most unusual appellation for a god. *El-La 'abân* recalls the modern name of the *wady* which the temple overlooks, *el-La 'abâni*. But PÈRE SAVIGNAC admits that the reading of the inscription is not absolutely certain. (*R.B.* xlvi, 1937, pp. 401-416.)

ASIA MINOR

Kusura.—WINIFRED LAMB reports briefly (*Arch. Anz.* 1936, cols. 406-411) on an excavation at Kusura, about fifty kilometers from Afyon-Karahisar. There is a settlement about four hundred meters in length and a cemetery. Three periods are distinguished. The first is chalcolithic; its pottery is good and sometimes has patterns incised or painted in white. In the second period there are houses with rectangular rooms; the pottery often has wide ribs and other plastic decoration; at the end of the period are red-cross bowls like those of Troy V, suggesting 2000 B.C. as an approximate date. In the third period the potter's wheel appears; there are traces of Central Anatolian and perhaps of Phrygian influence; the houses are usually long and narrow; a singular "shrine" was found. The cemetery contains pithos burials and graves of stone slabs.

Hittite Sculpture.—Professor JOHN GABSTANG, Director of the Neilson Expedition to the Near East, describes the discovery of a Hittite relief, cut on rock overhanging the Jeihan river at Sirkeli, about sixty miles east of Tarsus (*Ill. L.N.*, July 31, 1937, pp. 210-211). The relief consists of a single bearded figure, clad in the garments of a Hittite priest. Behind the head are hieroglyphs, which tell that it was set up to or by a King Muwatalli. It is very similar to the representations of Hittite kings which have been found in the north, except that there the figures are beardless. Chieftains were pictured with beards, however, in the south, for example at Marash, where it is known that there was a dynast by the name

of Muwatalli. He was the son of Mursil, who conquered the southern kingdom of Arzawa, and Muwatalli is said at one time to have retired from the capital, and to have lived in another city. Near the sculpture is a large mound, marking the site of an important city. A brief investigation has shown that it was occupied throughout the Imperial period. Another point which makes the identification of this city as the temporary headquarters of Muwatalli fairly certain is its location. In a battle which he fought against the Pharaoh at Kadesh in Syria his army was made up of levies on tribes from Asia Minor, and it has always been something of a mystery how good communication lines could have been established over the only known road into Syria by way of Marash. The discovery of this new site has revealed the route of a second main road, running directly from the capital either over a steep pass through Taurus, or more easily through the Cilician Gates. Both of these roads would have gone to Aleppo (ancient Haleb), where the armies were probably assembled.

Arzaova.—E. O. FORRER denies Sommer's identification of Ahhiyavā as Cilicia, and argues that Cilicia was the Arzaova conquered by Mursilis. On the north Arzaova extended to Tävanuva or Tyana (Thoana), and on the northeast to Oda, east of Antitaurus, on the borders of the Hatti kingdom. The Arzaovan state Tattassa was in the valley of the Holaya, in the north; its capital Dunna was Ptolemy's Tynna, Xenophon's Dana (*Anab.* 1, 2, 20) (not Thyana, which was off Cyrus' route), near modern Zeive, on the Taurus highway. Apasa, capital of Arzaova, was Tarsus (not Adana). The Arinanda Mountains are now called Misis Dağ, with the city Puranda at their coastal end, near the old mouth of the Pyramus; the island on which the refugees gained temporary refuge was the modern Kara-Taş, in olden times separated from the mainland by a shallow sound, now filled up. The whole Arzaova campaign of Mursilis is set forth with identifications, and also the localities mentioned in the inscription of Maduvattas. Ahhiyavā must have been Mycenaean Greece. (*Klio* xxx, 1937, pp. 135-186; appendix and detailed folding map, pp. 267-269.)

Two Decorated Pillars from Cyzicus.—The autumnal rains of 1932 uncovered two pieces of architectural sculpture at the village of Hamamli situated near the site of ancient Cyzicus. These have since been placed in the Museum of Istanbul.

Each piece is the upper fragment of a pillar decorated by a standing Dionysiac figure. The part below the thighs is missing, yet this is no great loss, since the statues were originally in the form of herms. Each figure plays the important architectonic rôle of forming a part of the pillar which it decorates, being sculptured in the same block and only slightly disengaged from it. The one figure is naked and carries a kid on the left shoulder; the other wears a Dionysiac crown and the skin of an animal. Although these attributes seem to indicate that the figures are satyrs, yet the strong physical bodies, sensuous lips, broad noses, and heavy locks of shaggy hair suggest representations of savage demi-gods rather than the graceful roguish satyrs of classical tradition. What relationship these figures may have had to the cult of Dionysos, which we know existed at Cyzicus, excavations alone can reveal. (P. DEVAMBEZ, *R. Arch.* ix, 1937, pp. 176-194.)

GREECE

GENERAL AND MISCELLANEOUS

Recent Excavations on the Acropolis.—For the past seven years excavations have been conducted by Dr. OSCAR BRONEER on the slope of the Acropolis, northeast of the Erechtheum, where he discovered a sanctuary of Eros and Aphrodite. During the past season two wells about sixty feet in depth were cleared. The contents of the fill included many magnificent small finds. Pictures of some of these discoveries with brief descriptions by Dr. Broneer are published in *Ill. L. N.*, August 28, 1937, pp. 360-361. Among the most important are a charming archaic bronze horse and rider; a large black-figured krater by Exekias (the first example of this shape that has been attributed to him). Two-thirds of the vase is preserved, despite the fact that two large millstones had been thrown into the well on top of it. Also found was a fragment of a painted terracotta plaque dating from about 700 B.C., and some two hundred os-traka of Themistokles.

The Agora Excavations in Athens.—A preliminary report on the most recent discoveries in the Athenian Agora, by Dr. T. LESLIE SHEAR, is published in *Ill. L. N.*, September 11, 1937, pp. 430-432. There are photographs of many of the most interesting finds, especially in the fields of sculpture, terracottas and vases.

Diodorus and the Sacred War.—Since 1856 the declaration of Schaefer that the text of Diodorus

XVI gives two parallel accounts of the origin of the Sacred War has been generally accepted, with the corollary that his two years from the seizure of the temple at Delphi by Philomelus in 357-6 to the declaration of war by the Amphictyony in 355-4 should be reduced to one; but no two scholars agree on the details of the readjustment. N. G. L. HAMMOND rejects *in toto* the suggestion of a doublet, and in a detailed interpretation of the text explains the apparent confusion by showing that, after mentioning the beginning of the war, Diodorus goes back to narrate the events which led up to it. The matter is of some importance, because with the history of the Sacred War are involved the rise to power of Philip of Macedon, the dating of the early speeches of Demosthenes, and the Naopoioi lists. (*J.H.S.* lvii, 1937, pp. 44-78.)

The Burning of Delphi.—In *R. Et. Anc.* xxxix, 1937, pp. 108-110, A. PIGANIOL discusses the date of the third burning of Delphi. G. DAUX, in his excellent work, *Delphes au II^e et au I^{er} siècle* (pp. 391-397), quotes the obscure tradition which places this burning by the Maedi "at the time of the war with Mithridates and the civil war," i.e. between 88 B.C. and 81 B.C. (Plutarch, *Numa* 9, 12) and agrees with A. J. REINACH (*B.C.H.* xxxiv, 1910, pp. 249 and 307) that the treasures must have been intact in 86 B.C. when Sulla confiscated them (Plutarch, *Sulla* 12, 4). St. Jerome dates the fire in 84-83 B.C. and Appian places the punitive expedition of L. Scipio "in the thirty-second year after the first contact of the Romans with the Celts." The invasion of the Maedi must, according to this view, have taken place in 84-83, after Sulla had gone on farther east into Macedonia and Asia. Piganiol, however, thinks that Sulla would not have left his line of retreat and communication unprotected and that the Thracians would not have chosen this time to attack Delphi. Pomtow puts the burning even later (83 B.C.), after Sulla had left the east, and makes it coincident with the burning of the Capitol ("Die drei Brände des Tempels zu Delphi," *Rhein. Mus.* li, 1896, p. 373). Piganiol would date the burning much earlier, say in 89 or 88, supposing the treasure to have been temporarily removed to a place of safety, and would count Appian's thirty-two year period as having begun in 118-117 B.C., when the governor Sextus Pompey was slain by the Galatians.

The Eleusinian Mysteries.—In *R. Et. Anc.* xxxix, 1937, pp. 97-107, GEORGES MÉAUTIS

discusses four matters connected with the Eleusinian mysteries:

I. Comparing a passage in Plutarch's *De facie in ore lunae* (942 C), descriptive of the destinies of souls after death, with a citation in Stobaeus from Plutarch's *De anima* (Edition Bernardakis VII, p. 23) where men's feelings at death are likened to those of initiates at the Eleusinian mysteries, the author finds that the "Initiates" mentioned in the first passage must be those of the *Eleusinian* mysteries. He emphasizes verbal resemblances, λειμῶνες "Αἰδον, χαρὰ μετ' Ἐλπίδος ήδειας (as in Isocrates, Cicero, Crinagoras, Aristides), στεφάνους εὐσταθείας (cf. Pindar, *Pyth.* IX, 125; *Olymp.* XIV, 24; Aristophanes, *Frogs*, 326, 343, 374) and infers from the Orphic beliefs here indicated that Orphism must have played a considerable part in these mysteries (Méautis' recent work, *L'âme hellénique d'après les vases grecs*, p. 165, treats of this question more fully).

II. Pausanias (X, 28, 4), in describing the painting of the Nekyia in the Lesche of Polygnotos at Delphi, speaks of a ghoul-like demon of Hades, who, he says, was unknown to Homer in his *Odyssey*, the Minyad, or Nostoi, and who, according to the statement of the exegetes, was named *Eurynomus*. He was evidently a dreadful creature, sitting on the skin of a vulture, of a blue-black color, "like the flies that light on corpses," with bared teeth — a devourer of dead bodies. F. de Ruyt (*Charun, démon étrusque de la mort*, pp. 17, 67, 79) connects him with the Etruscan Charun, whom he resembles in color, bared teeth, dreadful character and in the fact that he is outside the lower world. In the painting, described by Pausanias, Eurynomus is at the left, among those who, like Sisyphus and Tantalus, have no part, as have Tellis and Cleobea at the opposite side of the picture, in the happiness of the Eleusinian mysteries.

III. The pass-word (*σίνθημα*) of the Eleusinian mysteries, as recorded by Clement of Alexandria (*Protepticus*, II, 21, p. 18p) reads: I have fasted, I have drunk the *kykeon*, I have taken (the object) from the *kiste*: after performing the act, I have placed (the object) in the *kalathus* and from the *kalathus* in the *kiste*. Méautis finds that this series of acts, representing a symbolical impregnation, is set forth in all detail in a painting, which he fully describes, found in the Villa of the Mysteries at Pompeii, but he insists that these rites cannot have been performed by the three thousand celebrants of the Eleusinian mysteries within the

time limits of the festival. He thinks that Clement has confused the ritual of some small sect at Alexandria, possibly of Dionysos worshippers, with that at Eleusis.

IV. The meaning of the term, *ὁ μυηθεῖς ἀφ' ἑστίας*, inscribed on the bases of many small statues dedicated to children of the foremost Athenians, and found in the excavations at Eleusis, has been much disputed. Dismissing Boeckh's idea that it meant "near the altar" and August Mommsen's that it signified that the child had lit his torch at the hearth of Demeter in Eleusis and the explanation of Foucart, Kern and Deubner that it was equivalent to *δημοσίᾳ* (i.e. from the *ἑστία* of the Prytaneum at Athens), Méautis, comparing the expression *ἀρχεσθαι*, "to begin with the essentials and the fundamental importance of the goddess Hestia," thinks that the child, as the typically pure worshipper, presents the prayers for the whole family and for the state. He speaks of Christ's attitude toward children (whose angels are always before the face of His Father in heaven). So in the painting in the Villa Item, referred to above, a child is charged with the reading of the ritual, under an older woman's supervision. The child is, therefore, the first initiate, the type of the primordial initiate.

An Order of Alexander the Great.—In *R. Et. Anc.* xxxix, 1937, pp. 5-26, ANDRÉ AYMAR德 treats of an "order" (called *διάγραμμα* in *C.I.G.* V, 2, p. XXXVI, D 1, and *ἐπίταγμα* by Hyperides) of Alexander the Great, brought to the Greeks by Nikanor, toward the end of 324 B.C., and known to us from the oration of Hyperides against Demosthenes in the Harpalus affair. The part of the order which refers to the reinstatement of those who had been banished from the Greek cities is clear and has been properly interpreted, but in ll. 13-16 of the 18th column of the papyrus which read: *περὶ τοῦ τοὺς κοινοὺς συλλόγους Ἀχαιῶν τε καὶ Ἀρκαδῶν καὶ Β]ρο[ω]τῶν* followed by a lacuna of several lines or perhaps an entire column, there has been much uncertainty as to what is meant by *κοινοὺς συλλόγους*, which many explain as referring to the dissolution (supplying the word *καταλύσαι*) of all the leagues, including the *κοινά* of all the states in the Corinthian League, or at least of the Achaeans, Arcadians and Boeotians. Aymard, calling attention to the complete uncertainty of the reading *Β]ρο[ω]τῶν* (where the reasonably sure letters *οι-τω* may

form part of the verb with which *τοῦ* (*περὶ τοῦ* agrees) and also to the fact that the Boeotians at this time had no connections with either Achaea or Arcadia, shows that—apart from the futility of such a dissolution of assemblies, which could under more favorable conditions reassemble—the *κοινά* of Achaea and Arcadia (for the latter he adduces inscriptional authority) continued to exist after 324 B.C. Although many states contested before Alexander at Babylon the restoration of those who had been banished, no action seems ever to have been taken as to the second part of the decree. The author ventures to suggest that in the lacuna a request may have been made that the *κοινοὶ σύλλογοι* should confer divine honors on the victorious king.

Attic Festivals.—L. DEUBNER publishes (*Arch. Anz.* 1936, cols. 335-343) a black-figured lekythos in Palermo, with five women in procession; the first and the last carry torches, the other three boughs and baskets, of which one has the form of a *liknon* (winnowing-basket). These women are probably the *ἀντλήραι*, who, at the Thesmophoria, brought up from the underground megaras of Demeter and Kore the pig and other objects which had been thrown there at the Skira and were to be mixed with the grain for sowing. The torches would give light underground, the baskets would contain the objects, the *liknon* would be suitable in a festival of Demeter. The conventional boughs may well represent pine-branches. An *ἀντλήρια* symbolizes the Thesmophoria on a later relief. H. A. Thompson has suggested that the pig was thrown in at the Thesmophoria and the remains brought up some time later, but this is wrong; he errs in associating the procession to Skiron with the deposit in the megaras. Deubner publishes also a red-figured pelike with a scene from the Haloa: a nude hetaira taking one phallos from a basketful. Recent discoveries have made known the Zosteria, have confirmed the distinction between the Tauropolia and the Brauronria, and have shown that a footrace made part of the festival of Hekalos and Hekale.

Bronze.—D. ZONTSCHEW publishes (*Arch. Anz.* 1936, cols. 411-416) an oval, two-handled bronze bucket found in a tumulus near Pastrovo, Bulgaria. It is 24 cms. high and 20 cms. in diameter, not complete. On one side are Dionysos and the panther in relief; on the other side a youth, an animal and a herm. The style is that of the late fifth century B.C. The decidedly linear character of the work is not Attic; the bronze was probably

made in South Italy, perhaps at Tarentum. Other bronze buckets are mentioned, and J. Werner adds a list of twelve in various museums.

ARCHITECTURE

Polygonal Walls.—In *R. Et. Anc.* xxxix, 1937, pp. 111–124, H. ROLLAND describes extensive polygonal walls of a fine fifth-century Hellenic type (presumably like the wall which stopped Caesar before Marseilles), which have recently been fully explored, measured and photographed in excavations carried on at Saint-Blaise (Bouches-du-Rhone). This is a fortified spur, of about 125 m. in length, which projects from a higher plateau in a southerly direction and dominates at a height of about fifty m. the lakes Engrenier, Pourra, Citis and Valduc; the latter forms a creek on the west side of the promontory where vessels could anchor for leaving supplies and getting fresh water. The walls of massive construction form toward the south an irregular pentagon with two lines of wall, with a bastion in each, extending northward on the east and west sides, and with a separated tower on the west, which controlled passage alongside the fort toward the north and protected a narrow postern gate in the wall of the fortification itself. From the structural technique and copious pottery remains Rolland would (though somewhat doubtfully, in the lack of similar monuments with which to compare it) date the building of the fortress in the fourth, or perhaps better, in the fifth century B.C. It seems to have been an outpost for the defense of Marseilles and to have been used, as originally constructed, for only a short time. (Cf. Strabo IV, 1, 8, δύόπερ οἱ Μασσαλιῶται πύργους ἀνέστησαν σημεῖα . . . ἔξουκεούμενοι πάντα τρόπον τὴν χώραν.) In later Gallo-Roman times the walls were made higher and strengthened by towers. The original blocks vary greatly in length and height (two to three meters by 39 to 59 cms.) and are in some cases marked with rude letters, B, K (perhaps κάτω, as being found on the lower face), A, T, V and U.

Fragments.—W. ZÜCHNER publishes (*Arch. Anz.*, 1936, cols. 305–334) the results of a preliminary investigation of fragments of architecture and sculpture in the Asklepieion at Athens and on the Acropolis. There are about fifteen thousand. Sixty-two pieces belong to a marble sima, previously assigned to the old temple of Athena; Züchner doubts this assignation; each side of the gable measured at least 9.50 m. There are some

two hundred pieces of the sima assigned to the Peisistratean temple, and many pieces of other simas already known. About half of the antefixes of the Parthenon exist in part; four are replacements of Roman times. Two fragments of ceiling-coffers of the Parthenon permit the reconstruction of the painted ornament. There are three antefixes from the Nike temple; twenty-seven, all Roman, from the Erechtheum. The kalypters of these antefixes are of two types, one rounded, one straight; the latter may belong to the north porch. From the Erechtheum there are also Lesbian cymatia and pieces of the figures of the frieze. Thirty-five fragments belong to bases, several in the form of Ionic capitals. Fragments of sculpture are numerous; the only one illustrated belongs to a peplos statue of ca. 480 B.C.

SCULPTURE

Amazons.—Four mounted Amazons, respectively in the Naples Museum, the Palazzo Patrizi, the National Museum at Rome (from Anzio), and the Villa Borghese, have been recognized by A. SCHÖBER as copied from a single series; partly by comparison with the frieze of the temple at Magnesia, he placed this series in the second half of the second century B.C.; and since he followed earlier students in identifying it with the dedication of Attalos on the Acropolis at Athens, he concluded that it was Attalos II who made the dedication. There is, however, no definite evidence for a connection between these Amazons and the Attalid monument. On the contrary, as compared with pieces surely derived from it, they are sentimental and lack expressiveness and variety; none of them is made of grey-blue marble; the surface of the plinths is different; the proportions are different and inconsistent among themselves, showing disregard of structure. The mounted Amazons, then, have nothing to do with the series in Athens. The Borghese and Anzio sculptures have foes for the Amazons, added by copyists; in the former the additions show late Hellenistic style, in the latter Antonine. The originals of these two Amazons made a pair; presumably the other two would have pendants also; there would thus be at least six originally. A bronze statuette found at Mogilovo in Bulgaria is probably derived from the pendant of the Patrizi type; this is confirmed by groups on Roman sarcophagi, which also show other imitations of the series. A fragment in Florence does not belong to this series, but is a male Niobid; here again sarcophagi offer evidence.

It is the only representative in the round, so far known, of a Niobid group made fairly early in the second century, probably in Rhodes; from this group the originals of the Amazons were imitated. (B. SCHWEITZER, *Jb. Arch.* I. li, 1936, pp. 158-174.)

Erechtheum.—C. BLÜMEL publishes (*Jb. Arch.* I. li, 1936, pp. 154-157) a small female head, evidently from a relief, bought in Switzerland and taken to Berlin. It could well belong to the frieze of the Erechtheum; by its size, to a seated figure. Among the known fragments of the frieze there is no head really comparable.

The Hermes with Infant Dionysos at Olympia.—Commenting on H. W. Law's suggestion (*J.H.S.* lvi, 1936, p. 236; *A.J.A.* xli, 1937, p. 321) that the second-century pedestal on which the "Hermes of Praxiteles" once stood marks the date of the removal of the statue to the Heraeum from some other place, S. CASSON remarks that, considering the number of empty bases which must have been in existence at all Greek shrines after the Romans had carried off their booty to Italy, no inference at all about this particular statue can safely be made from the pedestal. (*J.H.S.* lvii, 1937, p. 80.)

Herakles and Eurystheus at Knossos.—A broken and badly weathered marble relief, which was found in 1903, covering a Roman drain at the Villa Ariadne near Knossos, shows a full-length, nude figure of Herakles, striding to the right and carrying the boar on his left shoulder, about to drop it on the head of Eurystheus, which emerges from a pithos on the ground in front of him. The Herakles is of the Myronian type, with close-cropped hair and beard. His right hand is raised, grasping the shoulder of the boar, which lies with legs in the air and head hanging down in front. The lion skin, folded under the boar, hangs down behind the figure of Herakles, and there are traces of the quiver and club. Variations of this subject occur on a metope at Olympia, where the hero is clothed and carries the boar on his head, while the shoulders of Eurystheus are well out of the jar; on a much-damaged metope of the Theseum, on which Herakles stands close to the pithos with his right foot resting on the brim; and on an archaic votive relief in Athens which shows the boar carried tail to the front and vigorously struggling. Herakles here is nude, but wears the square-topped lion-skin cap. No Eurystheus is present. This relief may be dated at 520 B.C., the Olympia metope at 470-460, the Theseum metope at 448,

and the Knossos relief between the last two, perhaps at 455. The legend told in the Hymn to Pythian Apollo that Cretans were brought from Knossos to establish religious rites at Delphi indicates an early religious centre here. The chief temple at Knossos in Hellenistic times was dedicated to Apollo Delphidios or Delphimios. Fragments of Daedalic sculpture found here may be from an earlier temple. The Herakles metope now shows that this was rebuilt, apparently in the Doric style, about the middle of the fifth century.

Another marble relief in Crete (Rethymno Museum) is a stele showing an athlete pausing beside a tree to the left, carrying his strigil and oil-flask in the left hand, while his dog sniffs at a bird with outspread wings which he holds in his right hand. The head is missing. The artist has emphasized beauty of outline rather than muscular development. The position of this work in the series of such stelae suggests a date about 460 B.C. This and the stele of an archer, of which the head alone is preserved at Candia, are probably imported, perhaps from Paros, and are certainly not by the artist of the Herakles metope. The Herakles and Eurystheus scene occurs again, in a greatly inferior design, in a clay mould for terracotta plaques found at Girgenti and belonging in the last quarter of the sixth century. (S. BENTON, *J.H.S.* lvii, 1937, pp. 38-43.)

VASES

Attic Lekythoi at Canterbury.—Four Attic lekythoi in the Beany Institute at Canterbury are pictured and briefly described by G. C. COOK in *J.H.S.* lvii, 1937, pp. 81-82. Three are red-figured, and the scenes are Nike before an altar (twice) and a woman's toilet, all by the painter of the r.-f. pyxis at Bowdoin College. The fourth, a white lekythos, shows a man and a woman with offerings, standing on either side of a tall grave stele with anthemion top. This one has outlines and some details in yellow and light gray. The four were all found in Athens in 1821-23, and are part of a collection presented in 1844 by Viscount Strangford, whose son was at the time M.P. for Canterbury.

An Etruscan Imitation of an Attic Cup.—It is well known that Etruscan artists imitated the designs on vases imported from Attica, but it is unusual to have both the original and the copy preserved. This seems to be the case with an Etruscan red-figured kylix now in the Rodin

Museum in Paris and an Attic kylix from Vulci in the Vatican. The scenes on both are revels of satyrs, with four figures on each side of the Vatican kylix and only three on the copy, the latter being several centimeters smaller; but the correspondence in these six figures is striking in spite of minor differences of attitude and details, as well as of technique. The two vases are not far apart in date, between 470 and 450 B.C. Probably the Attic vase, when imported into Etruria, was used in a workshop before being sold, and then remained in Vulci, while the copy was exported to Apulia. Its history can be traced, with gaps, back to 1836; it has meanwhile suffered breakage, with some losses and the addition of a false foot. A retrograde inscription on the interior is read: AULES V[I]PENAS, perhaps a signature. Rodin was greatly interested in antiquities and studied them closely. His *Bacchus à la cuve* seems to have been suggested by the tipsy satyr trying to balance himself on the bottom of a krater turned upside down, who appears in the central medallion of this piece. His collection, though little known, includes some seventy vases hitherto unpublished. (N. PLAOUTINE, *J.H.S.* lvii, 1937, pp. 22-27.)

Vases in Bonn.—A. GREIFENHAGEN publishes (*Arch. Anz.* 1936, cols. 343-406) fifty-one non-Attic black-figured vases and fragments, not previously well published, in Bonn. The collection contains about one hundred and thirty-five such vases. The discussions are brief but scholarly. Included are: an Early Corinthian alabaster with a serpent devouring a man (No. 6); a Cumaeian cup with human features in relief (No. 21); an Aeolic pitcher (No. 22); a neat Vroulian amphora (No. 28); several plastic vases; a well-preserved Ionic amphora, not closely placed (No. 45); an aryballos of top-like form, with the incised inscription, *Μεναδας εψε εποιεσε χαροπι*, which is probably Boeotian (No. 49).

Wedding Scene.—L. DEUBNER publishes (*Jb. Arch.* I. li, 1936, pp. 175-179) a small bowl, in Bonn, with a wedding scene. The drawing is poor, the period late fifth century. The bride and groom are about to enter their cart, drawn by mules. A youth holds two torches, to avert evil spirits rather than to give light. The bride is completely veiled; this, though found in no other wedding picture, probably was the actual practice; good painters made the face visible for artistic reasons. The bride's house is shown with a gabled roof. Beside the door are strokes representing the

κορυθάλη (branches of laurel twined with wool) displayed when sons became ephebes or daughters were married. The house possesses other remarkable features, which are interpreted as a colonnade on the second floor, opening on an interior court, and an exterior stair.

EPIGRAPHY

Some Pre-Roman Inscriptions in Cyprus.—The first installment of a projected small Corpus of Cypriote inscriptions, fruits of a visit to the island in 1936, includes eleven numbers. One of them, at Polis (Marion-Arsinoe), on what was apparently an upright at the doorway of a subterranean tomb, is in the Cypriote syllabary characters, retrograde, and gives a new variation of the sign for *ri*. Of the ten in Greek letters, all later than 300 B.C., one at Hagios Tychon (Amathus) affords the first evidence of the worship of Zeus Meilichios in Cyprus. Most of the others refer in some way to the contemporary Ptolemy, from Soter down, or to the Egyptian forces in the island. Several are additional parts of texts already published, or in some way supplement or explain their contents. The unusual use of the nominative for the person honored occurs once. New for Cyprus are the names Epinikos, Myrsine, and Hyperbassos. So is the *lampadephoria*, and the joint appearance of Hermes and Herakles as patrons of a gymnasium at Kythraea (Chytrai). Several stones now found at Famagusta were doubtless brought by the Venetians from the ruins of Salamis, four miles to the north. (T. B. MIRFORD, *J.H.S.* lvii, 1937, pp. 28-37.)

A Charitable Foundation of A.D. 237.—Two Greek inscriptions, a deed of gift and an honorary decree, which were copied by W. M. Ramsay and J. R. S. Sterrett in 1883, are now published for the first time in full by W. H. BUCKLER. They record the establishment of a perpetual fund of the value of two thousand five hundred Attic drachmas for the benefit of his fellow-townsmen by one Varius Aurelius Marcus of Orcistus, a place on the borders of Phrygia and Galatia. The income of one thousand drachmas, to be set aside and known as the Corn-Purchase Fund, is to provide a pound loaf of bread for each villager annually, and that of the other fifteen hundred is to be spent for a banquet in the Gymnasium, for all the people, on Happiness Day each year. The decree provides that, in recognition of the generosity of the said Varius Aurelius Marcus, on this and other occasions, a statue with inscription

shall be erected at public expense in some conspicuous place, as an honor to be enjoyed by his children and descendants. It also provides for the investment and administration of the fund by the archons of each year and the town clerk. Both documents were *sealed* by the archons and in the second case by witnesses as well, but *signed* by the town clerk, Aurelius Bassion, who had probably received the money, and the decree was filed by the Keeper of Records. Orcistus did not at this time have a city government with a *boule*, but was a town, *κώμη*, with a council of Elders, *γερουσία*, who had front seats in the *ecclesia*. These documents, copied from a basis which was later destroyed, are of interest both as examples of the procedure in such cases and for the details of this particular case. (*J.H.S.* lvii, 1937, pp. 1-10.)

Inscription from Thasos.—The stone was found at Thasos in 1934 in a corner of an old convent, which served as a museum and which was torn down to make way for the new museum. It is approximately six inches in height, six and a half inches in width and three inches thick. Its upper, front, and side surfaces are polished; its rear surface and the under surface, which was found broken, are only roughly hewn. This stone probably was set with its rear surface against some wall and driven into the ground. On the front appears in neat clear-cut letters the inscription:

ΔΙΟΣ|ΚΤΗΣ|ΙΩΡΑ|ΤΡΩΙΟ. This dates from the end of the fifth or the beginning of the fourth century B.C. The text suggests that the stone marked the site of a spot connected with the cult of Zeus. This stone and its inscription are compared with two other similar stones: the one found by M. G. Mendel in the same quarter; the other found by M. P. Perdrizet at Kariani at the foot of Mt. Pangée in Macedonia. (P. GUILLON, *R. Arch.* ix, 1937, pp. 195-200.)

NUMISMATICS

Alexander Tetradrachms.—In *Num. Notes and Mons.* No. 77, CHARLES C. TORREY makes a study of Semitic graffiti on nine Alexander tetradrachms belonging to the Demanhur hoard published by E. T. Newell in No. 19 of the same series some years ago. Torrey establishes a fact that has been frequently denied, namely that the Jews in Egypt, while using Greek for general purposes, never entirely abandoned the use of their own Aramaic among themselves.

Evidence to support this is found also in the

papyri emanating from Jewish sources in Egypt during the Hellenistic period.

CZECHOSLOVAKIA

Prehistoric Portraiture.—In *Ill. L. N.*, October 2, 1937, pp. 550-553, the most recent discoveries from the site of the prehistoric settlement at Vestonice in Czechoslovakia are described by Dr. KARL ABSOLON, leader of the expedition. There is a brief introduction and comment on the importance of the finds by Sir Arthur Keith, F.R.S. Dr. Absolon dates the occupation of this site by mammoth-hunters of the Diluvial Period about thirty thousand years ago. Among the most important of the numerous finds were spoons with handles carved from rhinoceros shoulder-blades. These are the first spoons with handles that can be dated earlier than the Neolithic Age. Notches cut in spears and other objects in clear groups of five are taken as an indication that Diluvial man knew how to count. The most amazing discovery was a small ivory head, a little under two inches in height. This is the first palaeolithic portrait ever found. It is described by the author as representing a man, but Sir Arthur Keith believes it is a woman.

The article is profusely illustrated. A considerably enlarged picture of the portrait head is used as a frontispiece.

JUGOSLAVIA

Trebenište.—In the *Anglo-Yugoslav Review* iii, pp. 101-104, NIKOLA VULIC summarizes the recent discoveries at Trebenište. Since the World War, six new graves of special value have been opened. Among the interesting finds have been two gold masks of a type known at Mycenae, a large silver drinking horn, and several important vases, some of them of Attic workmanship. The author believes that we have here a necropolis of various Illyrian princes and nobles, who were able to import Corinthian and Attic goods. Perhaps their city was near the present Ohrid, perhaps the ancient city of Luchnidos. In the failure to find actual ruins of a city from this period, this must be a mere conjecture.

Heraclea.—In the *South Slav Herald* vi, p. 5, announcement is made of preliminary work by the municipality of Bitolj in excavating the Graeco-Roman city of Heraclea. Also there have been discovered a basilica with numerous magnificent and well-preserved mosaics, and various other works, and Roman inscriptions.

U.S.S.R.

Recent Archaeological Discoveries Throughout the Soviet Union.—Three reports which provide a background for these more recent notes have been published in the *American Anthropologist* (E. Golomstock, "Anthropological Activities in Soviet Russia," Vol. xxxv, 1933, pp. 301-327; Henry Field and Eugene Prostov, "Recent Archaeological Investigations in the Soviet Union," xxxvii, 1936, pp. 260-290; and "Archaeology in the Soviet Union," xxxix, 1937, pp. 457-490). The general arrangement of the material below has been treated geographically under the headings Abkhazia, Azerbaidzhan, North Caucasus, Crimea and Black Sea Region. The maps, drawn at Field Museum by Richard A. Martin and published in the 1936 report, may be used as reference.

Abkhazia.—The following résumé of the work of expeditions in Abkhazia during 1935-1936 was received from A. KASHBA, Director, and L. SOLOV'EV of the Institute of Abkhazian Culture (AbNIIK) of the Georgian Branch of the Soviet Academy of Sciences.

1. In 1934 an expedition from the Institute of Anthropology and Ethnography (IAE) of the State Academy of Sciences, Leningrad, and the AbNIIK under the leadership of I. I. MESHCHANINOV excavated dolmens near Kiur Dere. Among the objects of particular interest was a bronze trident of fine workmanship. Urn burials, yielding objects of Koban type, were unearthed near Esheri.

2. In 1935-36 L. N. SOLOV'EV of AbNIIK, assisted by M. M. IVASHCHENKO of the Archaeological Institute of the Commissariat of Education of Georgia, excavated near Ochemchiri a large tumulus, built in the fifth century B.C. The excavators suggest that this mound was constructed in order to prepare a convenient building surface in the middle of the marshes to serve as part of a commercial harbor for the coastwise trade of Greek merchants. It is probable that this harbor was mentioned in the Periplus (fourth century B.C.), wrongly attributed to Scylax of Caryanda (first half of the sixth century B.C.) under the name of Gyenus (Huenos: the Russian transliteration is Giuenos), a river and city of Colchis on the eastern shore of the Black Sea and west of Georgia.

Many sherds of imported black polished ware were found, together with a bronze armlet and

a bird-shaped gold pendant, which are unique in the Caucasus. Re-established during the Roman epoch, the settlement flourished throughout the Middle Ages and later, being mentioned in the seventeenth century by the Italian traveller, Angelico Lamberti, under the name Tguanas.

At the base of the tumulus and on the adjoining level platform was uncovered an aeneolithic site, settled by the builders of the early dolmens and attributed to the first half of the second millennium B.C. Since there had been a change in level, the cultural stratum, partly submerged under the sea, was covered by a thick layer of deposits. Here was a curious cultural complex, possessed of traits which heretofore were deemed typical of several distinct epochs. Stone implements predominated. Flint implements, typologically Upper Palaeolithic, included gravers, Font-Robert points, etc. Microlithic sickle-blades and triangular notched arrowheads showed delicate pressure flaking, typical of the early dolmen period. The majority of the tools, made of sea pebbles (schist, diorite, granite), represent knives, chisels, gouges, scrapers, axes, and net-sinkers. No polished implements were present, but there were some bone tools (awl). Agricultural implements such as sickles, stone hoes, and handmills were more in abundance than those used for hunting or animal husbandry. Animal bones belonged almost exclusively to domesticated animals, especially *Bos*, less frequently *Sus*, and more rarely *Capra* and *Ovis*. The pottery offers a great variety of forms and is characterized by a hand-made coil technique.

3. ZAMIATNIN, in his report entitled "Paleolit Abkhazii," describes nine Upper Palaeolithic sites, twenty-three Mousterian sites, and ten older sites which he ascribes to the Acheulian and Clactonian periods. In 1936 Zamiatnin excavated a grotto containing Mousterian deposits near Adler in northern Abkhazia. He also discovered another grotto with Mousterian remains near Sochi.

Last year L. N. SOLOV'EV conducted geological explorations, as a result of which it became possible to coördinate cultural stages of the Palaeolithic period with various sea terraces and phenomena of glaciation. He will publish these results.

Near Tsebelda was found a grotto containing Upper Palaeolithic stone implements and human bones. Lower Palaeolithic implements were excavated near Sukhum.

4. In 1936 L. N. SOLOV'EV discovered several "Eolithie" sites, the most important located near

the villages of Andreevskoe and Neidorf (Neudorf). At Andreevskoe ashes, charcoal, and numerous wooden implements, awls, pins, and other pointed tools predominating, were uncovered in a stratum of peat. The largest specimens included hoes, some of which had near the pointed end twisted (or braided) thongs of vegetable fibers. The same cultural layer yielded animal bones and flint and limestone, unretouched implements of "Eolithic" type. From the geological evidence this site was attributed to the Mindel glaciation.

In a stratum of interglacial peat, overlaid with thick moraine deposits, another discovery of many well-preserved wooden implements, typologically akin to those from Andreevskoe, was made in the neighborhood of Neidorf near Sukhum. No stone tools were present.

In addition to the work being done in Abkhazia by AbNIIK, an expedition from GAIMK (Gosudarstvennaia Akademii Istorii Material'noi Kul'tury) explored the region to be occupied by the Sukhum hydroelectric station. A large cave in the gorge of the western Gumista River, and several tumuli were excavated yielding sherds and whetstones of the Mediaeval period. Two Bronze Age sites were investigated.

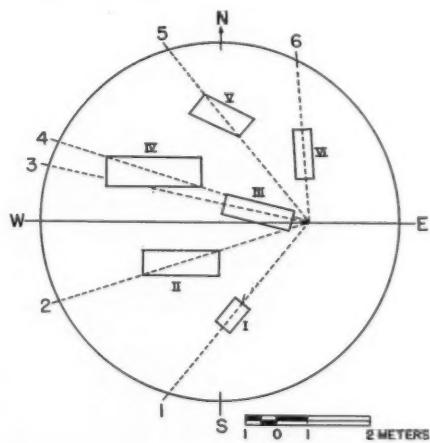
Azerbaijan.—The following important conclusions resulted from the 1935 excavations of Bronze Age tumuli (Gummel, Sovetskaiā Arkheologīā i, 1936, pp. 213-214): (a) The majority of the tumuli are family burial grounds with multiple burials; both individual and collective burials are represented by the graves. (b) Family tumuli were planned in the following manner: A point α was determined as the "sun of the tumulus"; a

W-E line was drawn through point α forming the "main diameter of the tumulus." Another point, representing the center of the future tumulus, was determined in the middle of the "main diameter." Lines from the first point to the periphery of the tumulus served as axes for the graves. These were in some cases parallel to the sides of the grave and in the other cases diagonal. (c) Hence, the rule for the ray-like orientation of graves, verified on sixteen tumuli, may be stated as follows: a ray from the "sun of the tumulus," located on its "main diameter" must coincide with either the principal or with the diagonal axis of the grave. (d) This rule permits us to explain apparently irregular orientation of burials etc., as well as to consider mathematical and astronomical knowledge of the people etc. (e) This rule permits restoration of partly obliterated tumuli, their simplified mapping, discovery of later burials, and discovery of overlooked burials in previously excavated tumuli. (f) The "sun of the tumulus" "sending its rays into the tombs," determined the location of the skeletons as much as the apparent movement of the sun across the skies.

North Caucasus.—The Mozdok Expedition of GAIMK (M. A. MILLER, leader) worked on a site beside the tracks of the North Caucasian Railroad. Twenty-two burials, the majority of them in three tumuli, were excavated, together with a portion of an ancient settlement. A cultural layer one meter thick in the latter contained sherds of homogeneous pottery of the sixth to the fourth centuries B.C., and some animal bones. Graves of the first to fourth centuries A.D. yielded numerous skeletons, including a deformed cranium, of the type commonly associated with burials on the plains near the Volga.

Another group of discoveries were tumuli of the so-called late nomads, attributed to the sixth to the tenth centuries. Thus this site, located on a promontory surrounded by the old bed of the Terek River, was found to be rich in remains of widely separated epochs, covering a span of at least fifteen centuries. Of exceptional interest here were the remains of the ancient Scythian period.

Crimea and Black Sea Region.—According to SELIVANOV (Sovetskaiā Arkheologīā ii, 1937, pp. 221-227) the excavations at Olvia (Olbia), suspended in 1932, were continued under the joint sponsorship of GAIMK and ANU (Akademii Nauk Ukrainskoi). The expedition, led by L. M.



SLAVIN and F. N. MOLCHANOVSKI^I, uncovered an entire city quarter of the Hellenistic period. Several important buildings, including a temple and a communal dwelling, were found. These buildings, partly excavated during previous seasons, were measured and a report prepared for publication. A section of the northern defensive city wall, two to three meters thick, was studied, and about a hundred meters of the clay subfoundation of the wall was uncovered.

Some seven hundred square meters were excavated in the port section of Olvia. The Roman stratum, two to three meters thick, was examined in 1935. A large cultural complex of the second to third centuries A.D. was brought to light, including the remains of two bakeries containing ovens with very large aprons. Work was also carried on in the necropolis. Among important objects recovered from two burial vaults were about one hundred golden objects, including sixty-three leaves from a wreath.

The Kerch Expedition (cf. Field and Prostov, *American Anthropologist* xxxix, 1937, pp. 468-469) of GAIMK, begun by O. O. Kruger, was continued under V. F. Gaidukevich for its third year of study of the social and economic life of the ancient Bosphorus. This expedition consisted of two sections, one of which carried on excavations five kilometers southeast of the cities of Tiritaka-Dia and Myrmikia, another on the Kamysh-Burun River ten kilometers south of Kerch, formerly Panticapea, the capital of Pontus.

The work in the Kamysh-Burun area culminated in the complete uncovering of a defensive wall, three meters thick, attributed to the fifth century before our era. Water conduits (sewers) leading away from the town were discovered in connection with the wall. Remains of later fisheries were found in the settlement when the wall was destroyed. This included a complex of fish-salting cisterns, and the remains of a large building containing fifteen millstones, granaries with remains of wheat, animal bones, pottery etc.

Two large wineries were discovered in Myrmikia. These were characterized by slanting concrete platforms, each divided into three sections, terminating in reservoirs for grape juice. The grapes were sorted and pressed by foot in the side sections. The final pressing was done mechanically in the central section where the stone pediment of a large press was found. The study of the plastering utilized wherever the buildings came in

contact with the grape juice, disclosed the extremely durable character of solutions used by the builders. Many Roman sherds were discovered in the remains of the wineries. (Note: Our thanks are due to Dr. Henry Field, Field Museum of Natural History, and Dr. Eugene Prostov, Iowa State College Library, for this summary of the archaeological researches being carried on in the Soviet Union.)

BYZANTINE AND MEDIAEVAL

Cyprus as a Fashion Centre.—Professor Talbot Rice recently undertook an expedition to Cyprus, on behalf of the Courtauld Institute in London, in an attempt to corroborate the statements of mediaeval historians and later travellers that Cyprus held an important position in commercial fields during the Middle Ages. It had been stated that Cyprus was one of the most important centres of textile manufacture, and was also renowned for metalwork. The costumes portrayed on Cypriote ikons were studied. They are obviously made of fine textiles, distinguishable from any made either in Byzantium or the West. The artists, therefore, were probably copying material of local manufacture. Cyprus was a very popular place to which to travel in early mediaeval times, and Cypriote knights also went west and participated in tournaments in Spain and London. Cypriote costume influenced western court attire. One piece of Cypriote costume, called the cypriana, was said to have been "all the rage" at one time. The results of this expedition are discussed by TAMARA TALBOT RICE in *Ill. L. N.*, August 7, 1937, pp. 246-247.

The Bollandists.—Although not directly of archaeological interest, one may not omit mention of the review which prefaces this issue of the *Analecta Bollandiana* lv, 1937, pp. v-xliv. A hundred years ago, in January 1837, the Bollandists resumed their work on the monumental *Acta Sanctorum*. A Jesuit group, the Bollandists suffered severely when the Society was suppressed. Undaunted they carried on for over forty years, much handicapped by the loss of their library and means of support and publication. This article briefly notices with historical sobriety the misfortunes of the dark days of the period of Enlightenment and Revolution and then proceeds to tell of the happier, though often very anxious times since 1837, a century of gradual recovery and development, the fruit of which

today commands the respect of scholars of every race and creed the world over.

Of the five articles, which with book reviews make up this issue, only one (pp. 1-28) by FATHER DE JERPHANION on the characteristics and attributes of saints in Cappadocian painting is of immediate value to the archaeologist.

Asymmetry in Mediaeval Architecture.—In *La Critica d'Arte* ii, 1937, pp. 66-76, L. CREMA considers the problem of the significance of asymmetry in mediaeval architecture. He gives a number of interesting examples among the Italian Romanesque churches, and mentions several suggested explanations. His conclusion is that, although the laws of perspective were known and sometimes employed, the planimetric alterations do not represent a series of systematic attempts to correct or create particular effects of perspective.

Basilica of S. Aquilino in Milan.—In *La Critica d'Arte* ii, 1937, pp. 55-65, C. ALBIZZATI publishes plates and a detailed description of the large marble portal of the basilica of S. Aquilino in Milan. The portal, hitherto not adequately known to students of Roman art, is interesting from the point of view of the development of decorative sculpture. It is an unusual example of the work of the early period of the empire, and in the elaboration of its carving seems to announce the taste of the later Romanesque period.

Cathedral of Benevento.—In *L'Arte* viii, 1937, pp. 90-109, P. DELLA PERGOLA discusses in detail the iconography and style of the bronze doors of the cathedral of Benevento. After a summary of various opinions concerning date and attribution he states his own theory, that the differences of style seen in the panels indicate the work of two men, one working not later than the end of the twelfth century, the other working not earlier than the middle of the thirteenth.

Correggio.—In *L'Arte* viii, 1937, p. 133, A. VENTURI publishes a portrait of a woman painted in 1517 by Correggio. It is the earliest extant work known by this artist.

Maiolica.—In *Faenza* xxv, 1937, pp. 3-14, G. LIVERANI discusses the problem of the origin of Italian maiolica. While giving some credit to the theory of oriental inspiration suggested by Frederick O. Waagé (*Hesperia* iii, 1934), he points out possible prototypes in Italy and believes that there is not enough evidence to arrive at a definite conclusion.

Sculpture of Bartolommeo Ammannati.—In

La Critica d'Arte ii, 1937, pp. 89-95, A. GABRIELLI discusses the stylistic development in the sculpture of Bartolommeo Ammannati, and attributes to him on the basis of style and the evidence of early writers the statues of David and Judith at the tomb of Sannazzaro in S. Maria del Prato, Naples, and the bronze satyr in Vienna. Among other works discussed at length are the relief sculptures of the archway of the Villa Benavides, Padua; the allegorical figure in the Museo Civico and a tomb statue in the Eremitani, Padua; the Del Monte tomb in Rome; the fountain of the Piazza della Signoria, Florence; and the Bacchus of the fountain of Borgo S. Jacopo.

Venetian Drawings.—In *La Critica d'Arte* ii, 1937, pp. 77-88, HANS TIETZE and E. TIETZE-CONRAD discuss the characteristics of Venetian drawings of the first half of the sixteenth century. They make some attributions on the basis of style and discuss, in particular, the drawings of Veronese, Antonio Aliense, Titian, Domenico Campagnola, Giorgione, and Lorenzo Lotto.

Early Valencian Painting.—In *Archivo Español de Arte y Arqueología* vii, 1936, pp. 239-250, the BARON DE SAN PETRILLO continues his accounts of the histories of early Valencian paintings. The first account is that of the late fourteenth century altar-piece of Saura de Besaldú in the old church of the Sangre in the town of Liria. This shows a Crucifixion above, a Madonna and Child below, St. Vincent and St. Stephen in the center, and, on the sides, eight scenes from the lives of these saints. In the same church is the altar-piece of St. Anthony of the Capelliure Chapel. It is crudely done and interesting only for its iconography. The third account is that of the Vincente Gil retable, executed about 1428 for the church of San Juan del Hospital, of Valencia. At present some of its panels are in the Metropolitan Museum and some in the collection of the Hispanic Society in New York.

Fifteenth Century Retable.—In *Bulletí dels Museus d'Arte de Barcelona* viii, 1937, pp. 65-71, 97-112, and 129-139, J. FOLCH I TORRES gives an account of the history, iconography, style, and recent restoration of the fifteenth century retable of the "Constable," formerly in the chapel of St. Agatha in the old Plaça del Rei, but now in the Barcelona Museum. This triptych represents the Epiphany, a slightly smaller one just above represents the Crucifixion, and the side panels show the Annunciation, Nativity, Resurrection, Ascen-

sion, Pentecost, and the Death of the Virgin. He also discusses in some detail the architectural structure of the altar-piece and gives documentary evidence concerning its date and its relation to other works of Huguet.

Juan de Zamora.—In *Archivo Español de Arte y Arqueología* xii, 1936, pp. 239-250, D. A. IÑIGUEZ discusses the similar style of three paint-

ings by Juan de Zamora, a contemporary of Alejo Fernández. These works are the Virgen de los Remedios in Santa Ana, Seville (formerly attributed to the Master of the Virgin of the Rose), and two altar-pieces of the collegiate church of Osuna. There is a brief summary of the life of the artist and some documentary evidence concerning these and other works by Zamora.

NEWS ITEMS FROM ATHENS

PLATE XXI

Great excitement was aroused in Greek archaeological circles this past summer by the return to Athens of an archaic marble statue (Fig. 1), a

shipped to Paris. When found the Apollo was intact except where the legs had been broken off below the knees. According to one of the peasants



FIG. 1.—ARCHAIC APOLLO IN THE NATIONAL MUSEUM AT ATHENS

sixth-century kouros, which had been smuggled out of Greece in 1932. The statue, which is over life size, had been found by peasants during illicit digging at Anavyssos, about twenty miles southeast of Athens, and sold to a dealer who had it

the feet were discovered a short distance away, probably still standing where the figure had originally been erected; but all real archaeological evidence has been lost or destroyed by the diggers. As they also found the statue too heavy to handle

easily, they placed large stones under its back and thighs and struck it with another stone on the stomach near the navel, causing it to break in the center. The pieces were first hidden in the grass and later in a stable. After its sale to the dealer it was taken at night to the little port of Oropos and there buried in the sand for several days. It was later loaded on a sailboat and transshipped to a steamer bound for a foreign port. While the dealer was negotiating for the sale of the statue in Paris, village rumors led to the discovery of the affair and the arrest of the peasants. They were tried, convicted and sentenced to varying terms of imprisonment and fines. The dealer likewise was condemned by default to eight years imprisonment and a fine of forty million drachmae but the exact hiding place of the statue could not be ascertained. Five years later the dealer was apprehended in Paris, but could not be extradited under French law. Soon after his release, however, he decided to surrender the statue to the Greek authorities, and in July 1937 the three cases containing the ten pieces of the kouros were turned over to the Greek Legation in Paris, whence they were escorted back to Athens on the Orient Express by four police officers. The statue is now in the National Museum, where it is being put together again. The kouros measures about 2 m. in height, and is of Attic workmanship like the one in the Metropolitan Museum, but later in date, belonging to the second half of the sixth century.

In the course of the flood-prevention work now being carried out in the bed of the Kephissos river, near the powder factory, a very fine grave relief was found. It is of the naiskos type with pediment, with three figures, two bearded men and a woman, all standing.

In the Kerameikos the continuation of the excavations between the Dipylon Gate and the Tomb of the Lacedaemonians, carried out by the German Institute from November 1936 to January 1937, has shown that the clay-brick wall formerly assigned to an archaic burial monument¹ is in reality the inner enclosing wall of the long-sought heating room for the Circular Bath. This discovery suggests that the round building with the terrazzo floor must have been a vapor bath. The Bath and its accompanying heating room show four building periods, which fall between 486 and 404-3 B.C., since the circular structure was not used after the building of the Lacedaemonian Tomb, and on a wall beneath it was found an os-

¹ A. A. 1936, p. 213.

trakon, the inscription of which forces us to date it as later than the year 486. Scratched on the upper and lower sides and edge of a cylix stem is ΜΕΛΑΚΝΕΕΙ ΗΙΠΠΟΚΡΑΤΟΣ ΑΙΩΡΕΚΕΘΕΝ.² The purpose of the heating room is indicated by the successive layers of burned matter. In its earliest construction-period the room had carefully built stone walls on three sides, faced with clay brick on the interior, while the fourth wall, on the side toward the Bath, is built entirely of clay brick. Within these walls was cut the earliest fire box, its shape like a broad trough with rounded corners, resembling the potters' kilns found in January, 1937, above the fourth-century Street of Tombs, at the eastern corner of the site for the new museum.³ The practical use of this trough in the heating room of the Bath is not clear. The three following periods change the arrangement—the foundations of the walls of the room now consist of large blocks, the floor is covered with paving slabs and a trough is left only in front of, and under, the north wall, opening into the adjoining room. Apparently it was from this side that the fire was built under the tripod above the trough. The kettle in which the water was to vaporize would have rested on the tripod and when heated would have been carried into the vapor bath. Small pits with vessels set in them, perhaps for holding soap and ointment needed by the bathers, were cut in the floor and particles of a tallow-like substance were found in an adjoining room. The water from the Bath was not carried off by the three underground channels, as had been formerly assumed, but probably emptied into the open ditches running along the street. It was only in Hellenistic times that the use of these ditches was finally abandoned and a tunnel driven down into the rock, although some of the channels had been filled up during the second half of the fifth century.

In this same region more than a hundred foundation pits for wooden posts had been cut, the greater part of them during the period of the Peloponnesian war. The excavators are now inclined to believe that these were used for the erection of the high platforms from which the funeral orations for those who had fallen in the war were

² Note the mention of the deme and the use of the dative which is known in the Agora collection only on a later example: ΚΑΛΛΙΑΙ ΔΙΔΥΜΙΟ (*Prosopogr. Att. I*, 7823). In the Agora the name appears twice on sherds as: ΜΕΛΑΚΝΕΕΣ.

³ See below p. 625.

delivered, near the public graves.⁴ Since the dead were presumably buried together each year of the war, it would entail the building of the platforms annually and thus explain the great number of post-holes. The first public tomb beyond the cross street opposite the Bath, which from its position might be that of Anthemokritos, has not yet been excavated. It appears, however, to belong to the fourth century and is certainly later than the Lacedaemonian Tomb, which makes this attribution doubtful. It was badly damaged in later times.

Before this region, included between the City Wall, the Eridanos, the side road to the Piraeus and the Processional Way to the Academy, was built up with the Bath establishment, it was cemetery land, but appears never to have been very popular. In the section between the Roman marble sarcophagus in front of the Dipylon Gate and the Circular Bath, were found three graves of post-Mycenaean date, twenty-two of Geometric times, and four belonging to the later sixth century. The post-Mycenaean graves lay at the extreme southwest and may be taken as a sort of outlying fringe of the necropolis under the Pompeion. One of these, containing a male skeleton, is important, as the burial was not made in the rectangular grave pit itself, but in a cavity hollowed out on the long side, which was closed with three tiles; these, however, had fallen when the grave was covered, and were found lying side by side on the floor of the tomb. With the skeleton were laid two of the usual jugs, decorated on the shoulder with hand-drawn semicircles, and a well preserved sword. The neighboring grave, lying approximately at right angles to the first, was that of a youthful woman, whose right arm, folded across the breast, held a jug, while the left hand was brought up to the chin. On the floor of the grave lay scattered the remains of a bone ornament, probably deliberately broken, perhaps a pin for fastening her garment. The grave was covered with stone slabs and had not been cut straight in the ground but ran in a somewhat curving line, to which the position of the dead was made to correspond. The third post-Mycenaean grave forms a transition to the Geometric: it consists merely of a pit filled with ashes, in which the sherds of a pair of jugs and two iron rings were found.

The Geometric graves belong, for the most part, to the second half of the eighth century. They are inhumation burials and are significant as being

⁴ Thuc. II, 34.

typical of the general re-emergence of the old manner of burial in the late Geometric period. Among them, a large amphora, containing some tiny jugs and cups, served as a child's tomb. Only three graves are earlier, namely, a badly damaged Protogeometric inhumation, a crouched burial and a cremation grave, rich in objects dating from the beginning of the eighth century.⁵

Graves of the Orientalizing and Early Archaic periods are lacking. The graves from the late sixth century include a child's grave (with an unpainted amphora containing two small skyphoi), a cremation grave with a number of shattered black-figured lekythoi, an inhumation grave with three "Lydian" ointment vessels, and a stone osteotheke. The latter is a new type, being made of a massive rectangular poros block, hollowed out to receive a bronze urn, in which were placed the ashes of the dead and two large black-figured lekythoi. The urn was closed with a lead cover and a second poros block was laid over the one below. At the end of the fourth century tomb-robbers tried to get into it, but succeeded in lifting only half the block, leaving the contents of the urn undisturbed. After this the region was not again used for graves until the Hadrianic period. The excavations of 1914-1915 had opened up most of these Roman burials, but Dr. Kübler found one still untouched. This proved to be that of a woman and contained many funerary objects: vessels of glass, buckles of bronze, bone spoons and two red clay saucers, one of which had the following inscription scratched on it: ACYPIH.

The new museum for the Kerameikos is rapidly nearing completion. It is built at the far end of the fourth-century Street of Tombs, opposite the present gate on Piraeus Street, and will, I imagine, be entered from Hermes Street as well as from the Kerameikos itself. In excavating for its foundations some potters' kilns were found at the eastern corner of the site. On the evidence of the very few glazed sherds found with them they are dated from the fifth to the fourth century B.C. and are thus the earliest Attic potters' kilns known. They are three pear-shaped pits, cut one after the other in the same spot, with the later ones sunk more deeply into the rock than the earliest. Two of them have a central supporting wall. A line of development can be followed from the archaic circular form which we know from the Corinthian pinakes

⁵ All these early graves will be treated in detail by Dr. Kübler when he publishes those found under the mound of Hagia Triada.

and which maintained itself in Troezen and Kynouria to Hellenistic times, through this new pear-shaped kiln of the Classical period, to the rectangular form. The kiln in front of the Dipylon gate of late Hellenistic times,⁶ has a straight rear wall only, while the one in the Pompeion, which is later than the fourth-century building but earlier than the Hadrianic reconstruction, already has a definite rectangular form.⁷

In the spring and early summer of 1937, the British School at Athens sent expeditions to both Siphnos and Crete.

"G. M. Young and J. K. Brock continued their excavations in Siphnos for a period of just over six weeks. A number of new areas were explored, for the most part without interesting results. One Roman grave was found close to the group of first-century A.D. Roman graves excavated in 1935. It produced a silver ring and a fragmentary tall glass vase of "pinched" shape. On the northeast slope of the Kastro, a seventh-century house was excavated: the ground plan is almost complete and the walls better preserved than those found in 1936.

"The site of an archaic necropolis was found close to the road leading to Apollonia, but unfortunately the whole area had been completely disturbed and the only finds were a few interesting sherds.

"The last fortnight was spent in excavating the area at the northeast end of the Acropolis, which, by then, had been cleared of the greater part of the mediaeval and later débris.

"On the sea side the rock was reached almost immediately: but a fine stretch of (probably) late sixth century marble wall that surrounded the acropolis was disclosed. On the inner side, where the rock fell away, a series of mediaeval cisterns seemed to preclude the possibility of earlier finds. During the last week, however, an undisturbed votive deposit came to light, associated with some early foundations which have in part escaped the mediaeval builders. One building has a rectangular end and a stone base, probably for a wooden column. It is uncertain whether this was a temple, but further excavation may provide more evidence.

"The richest part of the deposit dates from the first half of the seventh century, but the whole deposit, which was unstratified, covers the period from 700 to 550. The finds include ivory fibulae,

⁶ *A. A.* 1936, Fig. 21.

⁷ For this report I am indebted to Dr. Kübler.

beads and other objects, an ivory seal representing a centaur with a branch; a good terracotta head; an alabaster ring (Fig. 2), with a seated male figure engraved on the bezel (Fig. 3); bronze fibulae;



FIG. 2.—ALABASTER RING SLIGHTLY OVER ACTUAL SIZE

(Courtesy of Mr. Young)



FIG. 3.—ALABASTER RING BEZEL

(Courtesy of Mr. Young)

and a quantity of pottery, including some fragments of a very fine late Protocorinthian oinochoë and two interesting anthropomorphic vases, of which unfortunately only the lower parts are preserved.

One of these is decorated in Naxian, the other in "Siphnian" style.

"The opportunity was taken to extract, under the supervision of the Greek archaeological authorities, an archaic marble head, either of a kouros, or of a sphinx, from the wall of a private house into which it had been built. This fragment (total length 29 cm.) is much weathered and thickly covered with white-wash on the exposed front surfaces. It has also been marked in places with a black pigment. Two holes have been drilled into it, one in the crown, and the other in the broken surface of the neck underneath. Adjoining the latter are the remains of cement, containing red particles, apparently of brick-dust. These holes and the cement suggest that the head was set up again in later times."⁸

Excavations were carried out under the leadership of Mr. John Pendlebury, and with the assistance of the Craven Fund, in the area of the Lasithi plain during June 1937. "The exploration of the cave at Trapeza having been completed in 1936 the first few days were devoted to a series of tests on the same slopes, during the course of which

⁸ For this report I am indebted to the Director, Mr. G. M. Young.

small deposits of the Neolithic, Middle Minoan I and Late Minoan III periods (the latter a larnax burial) were cleared. Next the projecting acropolis, locally known as the Kastellos, was surveyed and partially excavated. Here two burials of the Neolithic period were discovered, the first to be excavated in Crete. They were in the nature of rock shelters, the actual burial stratum being filled with small stones. A third burial was found in a cave called Skaphidhia about a kilometer away. These burials confirmed the provisional dating of the local mottled pottery decorated with faces and 'tresses' in relief, which had been found in the single pure stratum at Trapeza in 1936 and had been assigned to a traditional Neolithic—Early Minoan I date. Most of the summit of the Kastellos has been denuded, but the foundations of several houses were cleared. Unfortunately no Early Minoan plan could be recovered but sufficient was found to show that while the Neolithic population lived in the Trapeza Cave and buried their dead on the Kastellos, the Early Minoans lived on the Kastellos and buried their dead in Trapeza. On the northwest slopes a fine house was excavated, which provided further proof that in the provinces the Middle Minoan I period was immediately followed, with no break, by Middle Minoan III. A great number of vases was discovered, forming the basis for a corpus of local pottery types.

"After a sufficient number of tests had been made in this region the work moved to the neighbouring village of Lagou where the cutting of the newly constructed car road had brought to light a quantity of archaic terracottas. It was found the modern road follows almost exactly the ancient paved road, to the south of which lay a large public building which has been partially cleared. To the north of the road the façade of a big archaic house was excavated. The chief point of interest was a rough baetylic stone set in the pavement before the front door. Only the façade and the porch were cleared as well as a room with an attractive pavement of kidney stones laid in classical times. The interior lies below a vineyard and is covered by over two and a half meters of earth. Since a very rich floor deposit began with the door leading into this, it would seem that further excavation would provide very rich material which had probably lain untouched.

"The two buildings mentioned above are outskirts of the great city which lies on the hill overhanging this part of the plain—the Papoura of St.

George. This city, from a superficial exploration and from an examination of chance finds made by the peasants, must have been one of the largest and most important in Crete during the archaic period. In area it is exceeded only by Knossos, Gortyna, Aptera and Polyrheneia, while the artistic standard of the terracottas is as high as any found. Unfortunately inscriptions are lacking and there is no name in literature which fits it.

"The depth of earth and the fact that a trial excavation would be a leap into the blue and might extend indefinitely led to the conclusion that the archaic and classical parts of the site were better left to another time. There was, however, a tholos tomb of the Geometric period which had been partially robbed by the peasants and which formed one of a group at the east end of the Papoura. This was carefully cleared and proved to be of the utmost interest. In diameter it is over two meters and the incline of the walls shows that the height was the same. Surrounding it, however, was a heavy rectangular mass of masonry, equal on every side to the diameter of the tomb and extending to within about a metre of the original capstone. At first this block of masonry had stopped short on a level with the low door of the tomb itself, but it had later been extended—to make the whole roughly square—in order to form a *dromos*. This extension may have been at a lower level, so that the tomb appeared terraced. Previous depredations had broken most of the pottery and dispersed the other objects, but enough was left—even before mending—to show that the tomb belonged to the mature Geometric period and from the evidence of polychrome sherds continued in use down to the borders of the archaic period. The most important small find was a double axe of Minoan shape, but in iron.

"The last days of the excavations were devoted to the high peak of Karphe, which overhangs one of the approaches to the Papoura. The sherds found on the surface had inclined us to believe that the site was Late Minoan, but excavation proved that it was only another instance of the conservatism of Lasithi, whither no doubt the old population fled. All the remains hitherto excavated are, as one would expect from the wild appearance of the place, Protogeometric.

"Two tholos tombs, one already partially cleared by Sir Arthur Evans in 1896, were explored. They formed part of what seems to be a regular Appian Way, being backed by a heavy terrace wall from which other walls project to

enclose each tomb. These tholoi are square at the base though the circular vaulting begins after two or three courses. Again the surrounding rectangular mass of masonry was present and these tombs are evidently the first example of freestanding built tholoi in Greece. Both unfortunately had been thoroughly cleared out in ancient times.

"Finally a building which lay on the sheer edge of the windy saddle between Karphe and the adjoining peak of Mikra Koprana was excavated. This turned out to be a shrine, the first of its period to be discovered. It consisted mainly of a large room with an altar at the north end and ledges around the south and west sides, broken only by a rough flight of steps leading up to a corridor and a further room with a similar ledge. Though the earth was under half a metre deep the rocky nature of the ground had prevented cultivation and a great quantity of pottery was discovered which, when mended, will be found to

represent most of the types of the period. Most important, however, was the discovery of the fragments of no less than nine cult figures in clay, of which two have been partially mended (Pl. XXI). They are the direct descendants of the Minoan goddess type of L. M. III, best known from the shrine of the Double Axes at Knossos, and represent a phase half way between the L. M. IIIb examples from Gazi and the bronze statues from the Geometric temple at Dreros. The features are clearly and harshly marked. The head is surmounted by a crown, which is topped by birds and discs. Both arms are raised in the Minoan style and the tubular skirt is also Minoan. But quite a new departure is the representation of the feet which are separately modelled and appear through openings in front of the skirt."⁹

⁹ For this report I am indebted to Mr. Pendlebury.

ELIZABETH PIERCE BLEGEN

NEWS ITEMS FROM EGYPT
THE SEASON OF 1936 TO 1937 IN EGYPT
PLATE XXII

The first archaeological discovery of the season of 1936 to 1937 to be widely heralded was made at Gizeh on October 20 by the Sub-Director of the Department of Antiquities, Selim Hassan, excavating on behalf of the Egyptian University. Hard by the Great Sphinx, where all tourists to Egypt go, whether or not they are able to journey four hundred odd miles farther south to visit the temples of Thebes, and where the holiday crowds from Africa's largest city, Cairo, are wont to congregate, Selim Hassan extricated an imposing monument of the Eighteenth Dynasty king Amenhotpe II, a limestone stela, twelve feet high by five wide, which had survived there, protected in a bank of mud, for over three thousand years, its existence in the frequented spot wholly unsuspected. The new stela is reported to be dated to the king's second year (ca. 1447 B.C.) and would then be the only one extant known for a certainty to be of that year, the year number being lost from his Karnak stela and only conjectured to be the second. The hieroglyphic text has not yet been communicated to scholars and is eagerly awaited. Preliminary accounts¹ indicate that it is in excellent condition and that its twenty-seven lines in part have to do with the king's marvellous success in archery, in rowing, in foot-races, and in managing horses. When published, it will supplement inscriptions longer known bearing on this king's sportsmanship; one hopes, for instance, for illuminating ideograms of the "targets" of "Asiatic copper" and even for the spelling of the word "target," should it be written out also phonetically. No hint has yet been given whether the stela has historical value. One would like further to learn whether it was set up before or after the king's military campaign in Asia to quell the rebellions incident to the demise of Thutmose III, a campaign generally ascribed to Amenhotpe II's second year. The Egyptian University's excavations

at Hermopolis Magna, having received notice in an earlier number of this JOURNAL, will be passed by here.²

Reports have also been given in this JOURNAL of part of the work of the Department of Antiquities at Sakkâreh, that conducted by Walter B. Emery³ and R. Macramallah.⁴ In addition, Jean-Philippe Lauer reopened investigations at the pyramid of Unis, of which the temple had been uncovered by Barsanti in 1900 and a plan made by Mr. Lauer in the winter of 1929 to 1930.⁵ And the activities of Selim Hassan included also excavations in the Sakkâreh field at the tombs of Ti⁶ and Ptahhotpe.⁷ In a quarry of Old Cairo the Department of Antiquities early in January 1937 found a late rock-hewn tomb containing a huge sarcophagus of hard limestone; although plundered, the sarcophagus itself was of some interest, and so were the robbers' leavings of pottery and amulets. Another late tomb was discovered there before the end of the season, one containing in its principal chamber fifteen sarcophagi of limestone and in its lateral chambers eleven others. Unfortunately the tomb had been thoroughly ransacked in recent times.⁸ In Upper Egypt, the Department was occupied as in past seasons at Karnak,

¹ A.J.A. XLI, July–Sept. 1937, pp. 464–465, summarizing *Ill. L. N.*, June 12, 1937, pp. 1088–1089; see also *Chron. d'Ég.* 24, July 1937, p. 185.

² A.J.A. XLI, Apr.–June 1937, p. 317, dependent on *Ill. L. N.*, Feb. 27, 1937; see also *Eg. Gaz.*, Feb. 10 and 11 and Mar. 1, 1937; *La Bourse ég.*, Feb. 11 and 28, 1937; *Chron. d'Ég.* 24, pp. 163–165; A.J.S.L. LIII, July 1937, pp. 259–260.

³ A.J.A. XLI, Jan.–Mar. 1937, p. 120, based on *Ill. L. N.*, Jan. 2, 1937, p. 3; see also *La Bourse ég.*, Dec. 18, 1936, Jan. 6 and 7, 1937; A.J.S.L. LIII, Apr. 1937, p. 202; *Chron. d'Ég.* 24, pp. 165–166.

⁴ *Eg. Gaz.*, Apr. 16, 1937; *La Bourse ég.*, Apr. 24, 1937; *The Times* (London), Apr. 16 and 23, 1937; A.J.S.L. LIII, July 1937, p. 260; *Chron. d'Ég.* 24, pp. 166–167.

⁵ *Eg. Gaz.*, July 22, 1937.

⁶ *Eg. Gaz.*, Feb. 17, 1937; *La Bourse ég.*, Feb. 17, 1937; A.J.S.L. LIII, July 1937, pp. 257–258; *Chron. d'Ég.* 24, pp. 183–184.

¹ *The Egyptian Gazette*, Nov. 6 and 30, 1936; *The Times* (London), Nov. 7, 1936; *Ill. L. N.*, Nov. 21, 1936, p. 921; *Journ. of Eg. Arch.* XXII, 1936, pp. 213–214; *Chronique d'Égypte* 23, Jan. 1937, p. 55; A.J.S.L. LIII, Apr. 1937, p. 201; *La Bourse égyptienne*, July 29, 1937.

Henri Chevrier continuing in charge.¹ In Luxor, houses to the east of the pylon of Ramesses II were demolished, resulting in the recovery of fragmentary reliefs of tribute bearers and lists of foreigners reused there in late structures,² and a new statue of Queen Nefertiry, said to be of superior merit, was obtained within the temple.³ The Department's task, undertaken by E. Baraize in the winter of 1935 to 1936, that of reconditioning Hatshepsüt's temple at Deir el Bahri, was continued last winter and will require several seasons to complete;⁴ its objective is to place again in position blocks found in recent years and generally to utilize the fruitful researches of H. E. Winlock and others at the temple.

The mummies of the historic kings of Egypt were subjected to another moving in 1936. It will be recalled that under the régime of Ismail Sidky Pashá they were taken from the Egyptian Museum in Champollion Street to the Mausoleum erected for the founder of the Wafd party, Zaghlül Pashá. After the return of the Wafd to power in the elections of May 1936, the mummies were sent back to the Museum and there consigned temporarily to the Director's house. A special building is to be erected for them, perhaps in drier Heliopolis, or even possibly in the region of the Great Pyramids as proposed by some, and financial provision has been made for it in the Budget of 1937 to 1938.⁵

Turning to the work of foreign expeditions and institutions in Egypt, I note that the Cairo Branch of the German Archaeological Institute excavated from the beginning of December, 1936, to the beginning of February, 1937, at its neolithic concession, Merimde, in the West Delta, the campaign being under the general charge of the Cairo Branch's Director, Professor Hermann Junker of the Egyptian University.⁶ On the neighboring Middle Kingdom site, Abu Ghālib, Swedish scholars excavated somewhat longer, from December 8, 1936 to March 6, 1937. Four more houses were found of the same type as the group discovered in 1934 and described in Volume VI of the *Mitteilungen des deutschen Instituts für ägyptische Altertumskunde in Kairo*. Three tombs, too,

were discovered and many small objects, of which the most interesting are seals and impressions made with them and the neck of a glass bottle claimed to be dated unquestionably to the Middle Kingdom. The puzzling microliths (flints) characteristic of the site are now believed also to be of the Middle Kingdom.⁷

An innovation for the Belgian Fondation égyptologique Reine Élisabeth was the excavation which it started last season in Egypt, its concession being the important ancient city at El Kab, fifty-two miles south of Luxor. Its first short campaign was expended at the main east temple and closely joined west temple, which the Director, Jean Capart, thinks were dedicated respectively to the tutelary goddess of Upper Egypt, Nekhbet, and to Thot; the triad within the three sanctuaries of the east temple he believes to have been Nekhbet and forms of Thot and Horus. Inspired apparently by the enormous amount of older material recovered in the lower levels at Medamud and Tūd, he looks forward to exploiting for their historical yield similar "archaeological reserves" (to use his apt term) beneath the final temple levels at El Kab. The preliminary sketch plan accompanying his article⁸ offers several corrections to the late Somers Clarke's plan (*Journ. Eg. Arch.* VIII, 1922, Pl. VI) as well as the addition of a gate just west of the first pylon of the larger temple in the central long axis of the west temple. Before this gate Mr. Capart found scanty remains of a protective lion with royal figure against its breast determining the position of its better preserved pendant which he had discovered earlier near the east gate of the temenos. And he also gives reasons for supposing certain walls and a granite threshold in the main temple to be vestiges still in position of the hypostyle hall of the Eighteenth Dynasty.

Excavations were conducted by the University of Milan at Medinet Mādi in the Fayyūm, Achille Vogliano being in charge in 1936 to 1937 as in the preceding season.⁹ The University of Turin worked at Gebelén, opening tombs of the First, the Fifth, and the Tenth Dynasties.¹⁰ The

¹ *Chron. d'Eg.* 24, pp. 173-174.

² *Ibid.*, p. 174.

³ *Eg. Gaz.*, July 19, 1937, p. 6.

⁴ *Chron. d'Eg.* 24, p. 174.

⁵ *Eg. Gaz.*, Dec. 25 and 30, 1936; Feb. 9, 1937.

⁶ *Jahresber. d. arch. Inst. d. deutschen Reiches f. das Haushaltsjahr 1936-37*, p. IX.

⁷ *Chron. d'Eg.* 24, pp. 168-170.

⁸ *Chron. d'Eg.* 24, pp. 132-146, summarized pp. 184-185, and expected to be reprinted in *Ann. du Service des Ant. de l'Eg.*

⁹ *Journ. Eg. Arch.* XXII, 1936, p. 215; *A.J.S.L.* LIII, Apr. 1937, p. 202.

¹⁰ *A.J.S.L.* LIII, July 1937, p. 257; *Chron. d'Eg.* 24, p. 168.

Italian Mission in the Valley of the Queens at Thebes secured only negative results.¹

The joint expedition of the Institut français d'archéologie orientale du Caire and the University of Warsaw, which from January 7 to February 19, 1937, excavated parts of the mound to the west of the temple of Edfu, also has been reported in an earlier number of this JOURNAL.² The site is an old concession of the French Institute, which conducted several campaigns there within the years 1921 to 1933. In the excavations of last winter a notable collection of more than two hundred Greek and demotic ostraca was amassed, establishing the existence of a family of Jews in one quarter of the town and revealing their fortunes as to taxation and other matters both of local and general interest through a number of generations. The beauty and palaeographical interest of the ostraca also are extolled by Bernard Bruyère,³ Co-Director of the dig.

The joint expedition of the Louvre, Paris, and the French Institute of Cairo continued its excavations at Tûd, ancient Tûphium, in 1936 to 1937 under the direction of F. Bisson de la Roque as in previous seasons. The results were less exciting than in the preceding season, but nevertheless valuable, the sacred pool constructed at the opening of the Christian era being investigated. The pool was found to have been fed by infiltration from the Nile and to have had two levels with their own quais, one for the dry season and one for the time of high Nile, there being a difference of 6.65 m. between them and connecting stairways having landing places. From the upper courses were recovered blocks of sandstone bearing evidence that they came from a building decorated by Amenhotpe II and Merenptah and dedicated to Sebekrê⁴; this is thought to have been situated across the river in the region of Gebelén. A poorly built stairway serving as a Nilometer was excavated at one side of the temple and from its upper end were taken fragments of statues of some interest.⁴ Quite as important a news item as

¹ *Chron. d'Ég.* 24, p. 180.

² That of Apr.-June, 1937, p. 317, citing *Ill. L. N.*, Mar. 6, 1937; p. 403; see also *A.J.S.L.* LIII, July 1937, p. 258.

³ In *Chron. d'Ég.* 24, pp. 185-189.

⁴ *La Bourse ég.*, Apr. 12, 1937; *Eg. Gaz.*, Apr. 13, 1937; *A.J.S.L.* LIII, July 1937, p. 262; *Chron. d'Ég.* 24, pp. 157-162, 170-171; a reprint from *Chron. d'Ég.* privately circulated has 12 additional half-tones; *Le Temps* (Paris), Aug. 8, 1937, p. 2.

fresh discoveries is that of an investigation consummated in a fine publication such as *Tôd (1934 à 1936)* by F. B. R., issued this past season as Volume XVII in the series "Fouilles de l'Institut français du Caire, sous la direction de M. P. Jouguet." A few illustrations of objects from the cache of Amenhotpe II, the finding of which was a sensation of 1935 to 1936, were given after negatives of the French Institute a year ago in this JOURNAL. Now that the highly important early reliefs from Tûphium have been published by their finder, I repeat here typical pieces, in Figure 1 part of a pillar of red hornblende granite bearing the name of Userkaf,⁵ first king of the Fifth Dynasty, in Figures 2 and 3 sunken reliefs of the Eleventh Dynasty king Samtowy Nebhepetre⁶ Mentuhotpe,⁶ and in Figure 4, p. 635 a sample of the work done under S'ankkarê⁷ Mentuhotpe, last, or next to the last, king of the dynasty.⁷ Mr. de la Roque believes that temples were erected on this site under Userkaf and under the two kings of the Eleventh Dynasty whose blocks he found reused. To support this view, he assumes that Sesostris I, also a builder on the site, laid his foundation at a lower level, thus obliterating traces of the earlier structures, since he himself found no traces of them and holds it to be improbable that Sesostris I would have made his temple duplicate precisely the ground plan of an earlier one. Mr. de la Roque may well be right, although one must not lose sight of the possibility that, like the Eighteenth Dynasty pieces reused at the lake (see above) and like a stela of Amenhotpe II transported in antiquity for reuse from Elephantine to Armant,⁸ the pre-Twelfth Dynasty blocks here might have come originally from a distance. The question of how often and how far in ancient Egypt used material was moved for reutilization is continually cropping up, as at Lisht, North Pyramid, where many blocks, clearly of varying dates, may possibly all have come from a single nearby ruined

⁵ Cf. F. B. R., *Tôd (1934 à 1936)* p. 62, fig. 15; not quite square in section, being .90 x .85 x 2.90 m. (amount of height recovered).

⁶ F. B. R., *op. cit.*, for fig. 2: p. 74, fig. 26; pl. XVIII; for fig. 3: p. 75, fig. 27, pl. XIX, 2. Both pieces are now in the Egyptian Museum, Cairo, bearing the entrance numbers 66,330 and 66,331; the first is .67 x 1.60 m., the second, .76 x 1.86 m.

⁷ F. B. R., *op. cit.*, p. 96, fig. 50; in Cairo, entrance no. 66,334; ht., 49 cm.

⁸ Charles Kuentz, *Deux Stèles d'Aménophis II* (*Bibliothèque d'étude*, Vol. X, Cairo, 1925), pp. V-VI.



FIG. 1.—PART OF A GRANITE PILLAR OF USERKAF. CA. 2400 B.C.

(After negative of the French Institute, Cairo. Courtesy of F. B. de la Roque)



FIG. 2.—SAMTOWY NEBHEPETRE¹ MENTUHOTPE CROWNED BY THE DEITIES OF ANCIENT TUPHIUM, MONTU AND TNENT. CA. 2050 B.C.

(After negative of the French Institute, Cairo. Courtesy of F. B. de la Roque)



FIG. 3.—SAMTOWY NEBHEPETRE¹ MENTUHOTPE AND THREE KINGS INTEF WITH OFFERINGS FOR THE DEITIES OF TUPHIUM. CA. 2050 B.C.

(After negative of the French Institute, Cairo. Courtesy of F. B. de la Roque)

temple which had been built and added to by successive kings, or may, on the contrary, have been gathered from various sites up and down the valley. These new reliefs of the Eleventh Dynasty—in all twenty-eight in tolerable preservation, as well as numerous lesser fragments—are more important for stylistic than political history. But for the latter, the relief of Figure 3 yields the valuable information that there were three Intefs thought by one of their near followers to be entitled to the cartouche of kingship. Another block which almost certainly fits above this one gives the Horus names of the two last, Wah'ankh and Sehertowy, the third Horus name, meaning "Quieting the Two Lands," being appropriate to a king who must have had much to do with bringing the Northerners finally under subjugation to the Theban family which composed the Eleventh Dynasty. Incidentally it should be recalled that "Quieting the Two Lands," of which this is the earliest known instance in a king's titulary, was borne as Horus-of-Gold name by a later liberator, Kamōse of the Seventeenth Dynasty. The disparity in size between the three Intefs and the two deities and officiating king, surely Samtowy, of Figure 3 is paralleled in another block found at Tūd¹ and in a rock relief at Shatt es Rigāleh.² In the rock relief a King Intef faces the larger-scale figure of King Samtowy Nebhepetrē Mentuhotpe, his attitude being one of respect, but not necessarily of adoration, as some will have it. Mr. Winlock explained him as a Crown Prince-Co-regent of this Mentuhotpe, who died before he could reign alone.³ Mr. de la Roque, however, accounts for the lesser relative size of the Intefs as indicating that they were kings over a part of Egypt, not over a united North and South (see p. 77 of his book). A commendable feature of the book is its careful analysis of the style of the two groups of Eleventh Dynasty reliefs. The earlier (Figs. 2 and 3) shows the arms disproportionately long, crowns disproportionately tall, the hieroglyphs unduly large in relation to human figures and often badly set; in the relief of Figure 2, arms which it embarrassed the artist to draw are partially eliminated, and the vulture headdress is awkwardly done, as if it were mostly inside the

crown with head and tail sticking out through holes in the latter; but very great merits of this art are its sobriety and vigor. In the style of S'ankhkare⁴—all too insufficiently illustrated in Figure 4—awkwardness has almost disappeared, the scale of the hieroglyphs is less overwhelming for human figures, the proportions of these figures are more nearly correct, the garments and head-dresses are much patterned, elegance having taken the place of extreme sobriety. For Mr. de la Roque these are two stages in the formation of a style, the beauty of which culminated in the opening reigns of the Twelfth Dynasty. For my part, I am inclined to consider as the apex the work done under S'ankhkare⁵ at Tūd and elsewhere; in comparison with it, I find, for instance, the decoration of Sesostris I's chapel of limestone now being reassembled in the "Musée" at Karnak over-elaborate and fairly recherché in its departure from nature when depicting the details of dress and the objects represented in the signs of the writing. Mr. de la Roque's admirable and lucid book covers the entire occupancy of this temple-site down through the time of the Copts, but two special monographs are yet to be issued, one by an Assyriologist on the foreign treasure of Amenhotpe II's cache and another by G. Posener and Mrs. Vandier on the reliefs of Sesostris I found enclosed within the rear wall of the Ptolemaic pronaos.

An enterprise at Thebes undertaken solely by the French Institute of Cairo is that of investigating certain of the funerary temples along the border of the cultivation and desert on the west bank. The scene of the excavations carried out by Alexandre Varille and Clément Robichon since December 1934 is just to the northeast of the great complex of Ramesses III at Medinet Habu and beyond the funerary temple of Eye and Haremhab, dug previously by the Oriental Institute of the University of Chicago. To the four temples discovered in 1935, a fifth to the north of them has been added this past season and will have to be excavated further next year; it was found to have belonged to the Twentieth Dynasty king Ramesses IV, who lived in the second quarter of the twelfth century B.C. Other chronological results of this last campaign are the ascription of the enclosure wall of the enlarged temenos of the Amenhotpe temple found by them to the Twenty-first Dynasty and the fixing of limits for the date of the northernmost of their four temples first discovered as not later than the time of Ramesses IV or earlier than the close of the reign of Amen-

¹ F. B. R., *op. cit.*, p. 79, fig. 32.

² Given in line in W. M. F. Petrie, *A Season in Egypt*, 1888, pl. XVI, no. 489, in half-tone in *Bull. of the M. M. A.*, Feb. 1928, Sect. II, p. 22, fig. 23.

³ *Bull. of the M. M. A.*, Dec. 1924, Part II, pp. 12-13.

hotpe III in the second quarter of the fourteenth century B.C. The clearing of the pool in the temple of King Amenhotpe III's great statesman of like name (Figs. 5-7) was also a task of the past season. Like the one at Tûd, it was found to decrease in area downward, terminating in a well of great depth which gave access to infiltrated Nile water; its construction must have been fraught with difficulty because below two meters of rock were strata of gravels; quite at the bottom were found bones of a common Nile fish, *Synodontis schall*, indicating that the pool was stocked in antiquity; the excavations of 1936 to 1937 revealed also, to the north of the pool, a stairway which descended steeply and making a turn opened into the pool; this has been added on the plan of Figure 7; and evidence of drastic alterations, probably contemporaneous with the enlargement of the temenos, was found, and the tree-holes around the pool were examined, loam and the remains of sycamore trees being found in them. Of the objects turned up in the course of the season, a head of painted pottery, thought by the finders to date from the time of Amenhotpe III and to be derived from a statuette of Osiris or Ptah, is given in Pl. XXIIA. But more fascinating to me is the probable identification of the Ipuky pictured and mentioned in a pleasing fragment of bas-relief with one of the sculptors of tomb 181 of which the delightful paintings were published in 1925 by the Metropolitan Museum of Art.¹ This relief may give us the sculptural style of Ipuky; at least it presumably indicates that he was engaged in the decoration of the temple of Amenhotpe, son of Hapu.² The work so brilliantly carried out among the scanty and confusing remains of four temples is well set forth in another handsome publication of the French Institute of Cairo, printed in Cairo at its own press, and published in the late autumn of 1936 as No. XI in the same series in which appeared the book on ancient Tûphium briefly reviewed above. This Volume I of a work entitled *Le Temple du scribe royal Amenhotep, fils de Hapou* and written by C. Robichon and A. Varille has forty-eight excellent

plates, many of them double or folding and two colored; its text, although adequate, is kept down to forty-eight pages, the more remarkable since the opening chapters are devoted, not to the excavations, but to passages in papyri and an inscribed stela bearing on the temple and known long before these authors identified its site. Especially welcome is the fine Plate I reproducing photographically Stela No. 138 in the British Museum with its nineteen lines of carved hieratic. Of it, Mr. Varille gives a transcription into hieroglyphs and a translation with intelligent comments on a few passages, in particular a difficult one in lines 3-4, thereby correcting, and adding not a little to, the results obtained by previous students of the text. Volume II of the work will discuss the inscriptions and catalogue the objects found on the site.

Still another French expedition is that of the University of Strassbourg working under Pierre Montet at Tanis. The past season's excavations were conducted at two places, around the first pylon of the "Great Temple" and in the region of the temple of the foreign war goddess Anat. The first produced valuable stelae and statue-fragments of the Saite period, which in part add to the data about a personage already known and prove that even though the capital at the time was in the West Delta, this eastern border town was not neglected; the second presented enigmas of construction, being as yet chiefly productive of reused material which includes some blocks going back as far as the Old Kingdom.³

British work under the auspices of the Egypt Exploration Society was conducted in 1936 to 1937 at three sites in the Nile Valley. At 'Amârneh John Pendlebury completed the excavation of the Great Palace, finding at its northern end servants' quarters built after the manner of the Workmen's Village, although more carefully. Reliefs, including one of the transport of an obelisk, models, sketches, fragments of scenes representing the royal family, parts of a painted ceiling of ducks and butterflies, charming bits of painting on papyrus, a complete Mycenaean vase, a Cypriote vase with some of its one-time contents preserved, were recovered in the palace and other buildings of the center of the city, now entirely exposed, enabling one to consult the plan of this capital of the ancient world.⁴

¹ Norman de Garis Davies, *The Tomb of Two Sculptors at Thebes*.

² A.J.A., Jan.-Mar. 1937, p. 120, condensed from Ill. L. N., Jan. 2, 1937, pp. 12-13; fuller in A.J.S.L. LIII, Jan. 1937, p. 104, dependent on Rev. d'égyptologie II, 1936, pp. 177-181; *La Bourse ég.*, May 9, 1937; *Chron. d'Ég.* 24, pp. 174-180, figs. 1-6.

³ A.J.S.L. LIII, July 1937, pp. 261-262; *Chron. d'Ég.* 24, pp. 181-183.

⁴ *Journ. of Eg. Arch.* XXII, Dec. 1936, p. 212.



FIG. 4.—SCULPTURED WORK DONE UNDER S'ANKHKARÉ, THE PERSONAGES NOT IDENTIFIED. CA. 2010 B.C.

(After negative of the French Institute, Cairo. Courtesy of F. B. de la Roque)

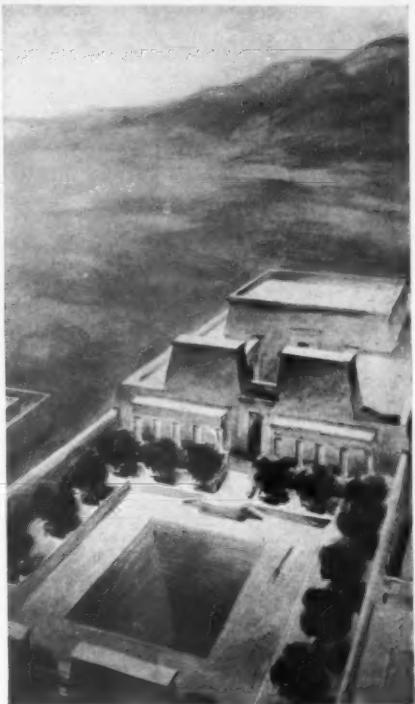


FIG. 6.—RECONSTRUCTION DRAWING OF THE TEMPLE OF THE SCRIBE AMENHOTPE, BUILT ABOUT 1360 B.C. Cf. FIGS. 5 AND 7

(Courtesy of A. Varille and C. Robichon)



FIG. 5.—PUMPING OUT THE POOL OF THE TEMPLE OF THE SCRIBE AMENHOTPE, SON OF HAPU, IN WESTERN THEBES

(Courtesy of A. Varille and C. Robichon)

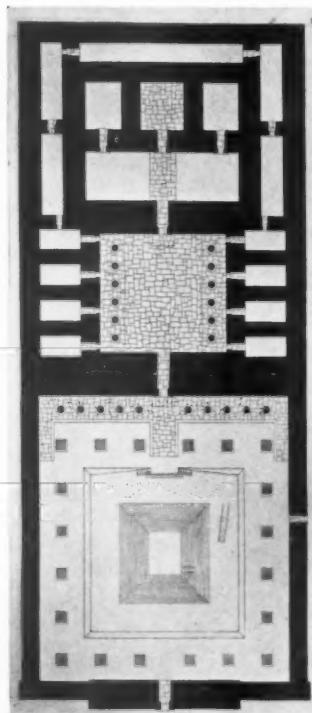


FIG. 7.—PLAN OF THE TEMPLE OF THE SCRIBE AMENHOTPE, SHOWING A FIRST GARDEN COURT WITH POOL AND TREES, A SECOND PAVED, COLONNADED COURT WITH ADJACENT ROOMS, AND THE INNER SANCTUARY BEYOND. Cf. FIGS. 5 AND 6

(Courtesy of A. Varille and C. Robichon)

Sir Robert Mond's work for the Society at Armant, under the field direction of Oliver H. Myers, included a number of investigations—at the main temple, at a platform of crude bricks bearing cartouches of Amenhotpe III, but denuded of its superstructure, at a Coptic hermitage, at a cemetery of "pan-graves," where new light was shed on the purpose of painted skulls buried around the individual tombs, their horns emerging from the earth, at various spots occupied briefly by Bedouins of the Predynastic and Early Dynastic periods, and on the Armant-Nag Hammadi trail, where Thirteenth Dynasty inscriptions were found, yielding the names of a queen and princesses not hitherto known. Of all this prolific work, the barring of the Ptolemaic temple's pavement of reused blocks, four deep and comprising in area some two thousand square meters, fires the imagination the most. The decorated blocks, of which a fine example is given in Pl. XXIIB, range in date from the Eleventh to the Twenty-sixth Dynasty and are stated to be in brilliant condition, many of them with colors as fresh as when first laid on. One may hope for an artistic and historical harvest of high importance, when once they have been taken out, sorted, and studied, but the task is being delayed by the necessity of moving a cemetery overlying about half of the temple. Concurrently with all the foregoing, an expedition to the High Desert, led by H. Winkler, explored wadis of the Kusär road and of routes to the north and east of Luxor and Armant. Over a thousand rock drawings ranging from Palaeolithic to Arab times and several new Horus names of early kings were found and photographed.¹ An exhibition of the season's results was held in London from September 1 to 25, 1937.

Like a continuation of its 'Amārnēh project are the new excavations of the Society up the Valley in a wild spot of the Anglo-Egyptian Sūdān somewhat north of the Third Nile Cataract. There, at Sesebi, the connection of which with Akhenaten was a discovery long ago in 1907 of the late Dr. Breasted, A. M. Blackman has made notable discoveries, not only at the site of the three temples founded by Akhenaten—as foundation deposits reached this last season testify—but also in the town and cemetery. The temples were begun before the king's fourth year, when he still

and XXIII, June 1937, pp. 118–119; *Chron. d'Ég.* 24, pp. 180–181.

¹ *Journ. of Eg. Arch.* XXIII, June 1937, pp. 117–118; *Chron. d'Ég.* 24, pp. 171–173.

styled himself Amenhotpe, and were decorated in part in the first 'Amārnēh period before the change in the form of the Aten's name in the ninth year; thus the king's early style, in no way erratic, and that of his first 'Amārnēh period have been found here far to the south; so also have many fragments of Mycenaean vases in houses. The middle temple had a small crypt decorated before the fourth year and showing the king in the company of various deities; it is unique today, except for one of Ptolemaic date at Denderah. The most striking relief depicts life-size heads of prostrate negro enemies and parts of their bodies and bows from what must have been one of the earliest of battle scenes to a large scale on the wall of a temple, though the subject is familiar on chariots and a chest of the Eighteenth Dynasty. Other objects found witness to some occupancy of the site before and after the time of Akhenaten. An estimated half-season's work remains to be done here next year, after which Dr. Blackman hopes to dig at Sōlēb, thirty miles distant, which is noted for its Sed-festival scenes.²

The Egypt Exploration Society and the Oriental Institute of the University of Chicago conducted what will probably be their last season of joint work in the temple of Sety I at Abydos, Miss Calverley in charge. Volume III of their great publication will appear, it is hoped, before the close of 1937, and Volume IV is so far under way that it can be finished in England. Surely funds ought to be procurable for a future Volume V to make complete the record of the temple's scenes and inscriptions.³

Mrs. Guy Brunton, whose artistic gifts and training have in recent years been devoted in part to ancient Egypt, also in 1936 to 1937 made further delightful facsimiles executed in water colors on ivory of Tutankhamūn ornaments and copied two daggers of the king together with their sheaths; also she again sought to render vivid in the language of modern painted portraiture the appearance, as known from ancient sources, of royal personages of the past—this time King Djoser Neterkhet, King Teti's queen, and, from the Classical age, the renowned Cleopatra. An

² *Journ. of Eg. Arch.* XXII, Dec. 1936, p. 212; XXIII, June 1937, p. 117; *A.J.S.L.* LIII, Jan. 1937, p. 104, Apr., p. 203; *Chron. d'Ég.* 24, pp. 190–192; *Ill. L. N.*, Aug. 14, 1937, pp. 272–273.

³ *Journ. of Eg. Arch.* XXII, Dec. 1936, p. 212; XXIII, June 1937, p. 119; *A.J.S.L.* LIII, Jan. 1937, p. 101.

exhibition of Mrs. Brunton's last season's output of all kinds, her seventh in London, was opened on June 27.¹

Of American work there was less than usual last season, the Metropolitan Museum of Art not excavating, although the Graphic Section of its Egyptian Expedition under Norman de Garis Davies was in full operation. And the Oriental Institute of Chicago went forward on a curtailed basis having given up among other things its Memphis House. To its work in collaboration with the Egypt Exploration Society I have referred above. From Dr. Nelson² I hear that *Medinet Habu*, Vol. IV, went to press in the summer of 1937, that it "will contain the material from the great feast scenes in the second court . . . and certain parallel material from the other Theban temples, especially that bearing on the feast of Min. . . . This will make a volume of about 42 plates, many of them double, and about nine in color. . . . I figure that I can publish the remainder of the temple in a single volume by printing on both sides of the page and using a smaller format. There will be some 250 plates in that volume." For the next season emphasis on the Institute's activity at Karnak, especially in the temple of Khonsu, is contemplated: "The Karnak job seems to me the more important now that we have published the greater part of the Ramses III temple at Medinet Habu. Of course we shall continue with the latter temple, but the buildings on this side of the river are going rapidly and we must get on with this work."³

At the Camp of Harvard University and the Boston Museum of Fine Arts, to the west of the Great Pyramids, under George A. Reisner, the entire staff was engaged last winter principally with publications and only secondarily with excavations, and there work went on at an accelerated pace. Two volumes of a definitive work by Dr. Reisner, *The History of the Giza Necropolis*, are ready and the first will go to press in the autumn of 1937. Volume I includes eight chapters, four appendices, seventy-one plates, some three hundred line drawings in the text and several maps. It covers "the historical relations of the Giza necropolis; the basis of the chronology; the fields of tombs; the six nucleus cemeteries of mastabas; and separate chapters on the types of

mastabas, types of burial chambers, and types of funerary chapels. This volume will also contain appendices giving detailed descriptions of the mastabas of the early nucleus cemeteries."⁴ Next will be published chapters IX-XVI giving the service equipment of the chapels, the funerary furniture of the burial chambers, the chronology of the finished mastabas and rock-cut tombs, the history of certain great Gizeh families, and the history of the royal family of the Fourth Dynasty. Descriptions of the mastabas of the Fifth and Sixth Dynasties will follow those of the Fourth, and a volume has been prepared by W. S. Smith on the development of Egyptian Sculpture, mainly down to the end of the Old Kingdom. Chapter XII is concerned with the development of pottery during the Fourth to Sixth Dynasties at Gizeh for which, in addition to much other material, Dr. Reisner had available a corpus of reconstructed vessels from the tomb of Queen Hetepheres, mother of Khufu, the result of seven years of patient fitting together. "While this publication has been going on a small gang (7-15 men) has been employed on making minor clearing to elucidate questions arising in the description of the separate mastabas. On the edges of certain excavated areas, we have cleared small ruined mastabas and cleared up the chronological connection of these mastabas with those of the excavated field. In the course of minor clearing we have found a number of statuettes, three new reserve heads and a number of other objects . . . some of the objects are now in the Cairo Museum and the rest in Boston."⁵ An exhibition of the season's production of paintings by Joseph Lindon Smith, including much from the tomb of Ptahhotpe at Sakkâreh, was held at the Camp just before his sailing this past Spring, as in many earlier years; this always enjoyable event was given further interest this year by the presence of the President of the Museum of Fine Arts, Edward J. Holmes and Mrs. Holmes.⁶ From the Harvard-Boston Camp also emanated a moving and comprehensive tribute by Dr. Reisner⁶ to the person and accomplishment of the great master in Egyptology, Adolf Erman, who died on June 26, 1937, leaving us all bereft.

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¹ *Eg. Gaz.*, June 24, 1937; *Ill. L. N.*, July 3, 1937, p. 19.

² Letter of July 21, 1937.

³ Harold H. Nelson, letter dated Apr. 11, 1937.

⁴ Dictated by Dr. Reisner and communicated to me in a letter of W. S. Smith dated Aug. 2, 1937.

⁵ From a letter written to me by Dr. Reisner on Aug. 26, 1937. ⁶ *Eg. Gaz.*, July 2, 1937, p. 6.

BOOK REVIEWS

ANCIENT EGYPTIAN PAINTINGS, selected, copied, and described by *Nina M. Davies* with the editorial assistance of *Alan H. Gardiner*. Two volumes in folio, one smaller volume of text. Pp. xlvi + 209, pls. 104. Great Britain and Ireland, Cambridge University Press; United States of America, University of Chicago Press, 1936. \$75.00 + duty and carriage from England.

In this marvellous work, ancient Egyptian painting has come into its own. Other *de luxe* publications of wall scenes from the tombs and temples of Egypt have appeared in substantial numbers in recent years, but in them invariably the material is confined to a limited period, and the more or less full text, if any, is concerned with varied aspects of the scenes and inscriptions—the quality of their sculpture, when in relief, as well as of their painted surfaces, if preserved; their yield for contemporary language, religion, history, and mode of life, for the station and activities of the individual tomb-owner or the reign of the particular king-builder. And to satisfy all these aims, line plates predominate, photographic plates are often numerous, and colored plates, however fine, are in most cases well in the minority.

In the present work every plate is a superb colored collotype, and there are one hundred and four of them, ranging in the dates of the paintings they reproduce from about 2700 to 1090 B.C., and they are to a scale large enough, and have a fidelity to their originals adequate, to set the library worker in a hitherto unattainable position; now, he can readily acquire a notion of the nature and course of the art of painting as practised in ancient Egypt. Added to the advantages of number and range in the examples thus made easily accessible, we have in the convenient text volume Mrs. Davies' own comments on the technique and style of the paintings. She speaks of this part of her contribution most modestly (pp. xvii–xviii), yet it is precisely the observations of one experienced as a painter and copyist which will command the attention of modern artists and students of the history of painting, and which those Egyptologists who have never wielded a brush and palette themselves will be wise to read to their own enlightenment.

The general scheme of the work has been admirably conceived, especially for use by a larger public. In the folios, opposite each plate, is the briefest possible statement of subject, source, and date of the particular fragment of painting there presented in facsimile. For convenience in looking up references to the plates, their numbers are boldly printed on the reverse of the cover sheets as well as on the face of the plates. The text volume has three main sections, first, a general Introduction, consisting largely of brief paragraphs on fundamental topics such as: "The Mode of Drawing" (§ 5), "Materials and Implements Used" (§ 7), "Backgrounds" (§ 11), "Varnishes" (§ 14), etc.; second and longest, a description of each of the plates, and third, a "General Index," an "Index of Localities," and an "Index of Personal Names." The descriptions of individual paintings rarely exceed two pages each. The popular, brief title appearing in the folios, such as "Music at a Party" or "A Nile Boat with its Crew," heads each entry, then follows, easily located under small caps, the necessary information on Provenance, Date, Dimensions of Original, Technical Details, and Previous Publication. The continuation for each plate is characterized by agreeable English and skill in pointing out a few salient interests of subject and artistic style without going exhaustively into all the matters which the several plates easily suggest.

Dr. Gardiner's editing gives authority to the translations of Egyptian texts and legends occurring in the respective originals and doubtless has contributed much besides. For not even the ability and twenty-five years of arduous work of a Mrs. Davies could have produced this unique record of one of the major arts under an ancient civilization without many favoring circumstances. Not only the support and coöperation of Dr. Gardiner have been valuable to her, but also her husband's, with whose activities as head of the Graphic Section of the Metropolitan Museum of Art's Egyptian Expedition she has been intimately associated, Mr. and Mrs. Davies having copied for the first time for the Metropolitan Museum many of the subjects appearing here. Norman de Garis Davies and Mrs. Davies have been the leaders in the method of copying full-scale, which, starting with a tracing, so carefully

taken as to do no injury to the original, then employs the modern technique nearest to that of ancient Egyptian artists, namely, tempera painting, rather than that of water colors or oil painting, and which eschews restoration or interpretation in color work and gives us the extant examples in their present state.¹ Only the comparatively small number of scholars who busy themselves with ancient Egypt realize how great has been the service of these two in rescuing from oblivion precious source material and beautiful work.² But the publication before us assumed fairly the aspect of an Anglo-American undertaking when the heavy cost of so many colored plates of high quality, offering, as it seemed, an insuperable difficulty, was met through the generosity of John D. Rockefeller, Jr., acting through the Oriental Institute of the University of Chicago. These obligations and others are warmly acknowledged in the Preface by Dr. Gardiner and in the first paragraph of Mrs. Davies' Introduction.

The foregoing account of the character of the publication will indicate how much its acquisition is to be recommended to any municipal or university library, even those necessarily quite selective and restricted as regards ancient Egypt, and how indispensable it may be regarded for art libraries, whether private or situated in Museums of Art. Not long ago I was astonished to learn that an early book of mine on ancient furniture was found in a certain college to be chiefly employed as an aid to stage settings in some of the dramatics of the undergraduate body. It may not then be wide of the mark to call attention to the reproduction of color as adding to the attractiveness and usability of Mrs. Davies' plates and to predict their popularity in a variety of ways unforeseen by her and her advisers.

The publication may now be considered more particularly from the point of view of Egyptology. Surely no worker in this field could fail to utilize and be grateful for so large a number of color

¹ Extremely slight restorations in four plates of the work under review and the renovating of "faded" tints in six others do not invalidate the general truth of this statement.

² I read here (p. 100, note 1) with regret that the head of "a charming young girl," seen in pl. L, has recently been destroyed, and note on p. 66 a reference to "a jackal of which the head alone remains"; the entire animal was reproduced in Norman de Garis Davies, *The Tomb of Ken-Amun at Thebes*, Vol. II, New York, 1930, pl. XLVIII A.

reproductions chronologically set forth in a single publication. The point does not need to be argued, but, of the selection of examples, he will naturally be very critical, and this attitude was anticipated by Dr. Gardiner in his Preface where he makes clear (p. xi) that to illustrate for a wider public the few extant masterpieces and the known phases of ancient Egyptian painting, some overlapping with previous publications was inevitable; if they "have sinned at all," he hopes they have done so "with discretion." How much then in these plates is entirely new, or such an improvement on our previous resources as to justify for the specialist its inclusion? First, sixteen wholly unpublished examples of painting are given in as many plates, and around sixty others have been inadequately published previously, the majority solely in line or photograph, a few in crude color reproductions; for these, as paintings, the new plates are clear gain, and in many cases afford for the subject matter the first satisfactory record. The specialist's need for the remainder is debatable, but even here he may approve the "discretion" displayed, especially in illustrating a known style by other examples not hitherto published in color, as in Plates XII, XCVI, and XCVII, or by using so marked an increase in scale as to afford a new conception of the figures (Pl. XCIX and, to a lesser degree, Pls. LXXXVIII, LXXXIX). Again, Mrs. Davies seems in many plates to be outdoing herself, but there is a certain interest for those who have ever been concerned with the difficult task of color reproduction in comparing her Plates XXIX, XXX, and XXXIII of the Chiswick Press with the earlier plates made after her copies by Emery Walker and published in her husband's fine volumes on the tomb of Kenamun.³ The same remarks may be made about Plates LXI, LXII, and LXIV here, repeating Plates VII, XIV (nearly), and XXI in the Metropolitan Museum of Art's book *The Tomb of Two Sculptors at Thebes*; the brightness of the blues differs in the two sets of plates, and does the original have green or blue sepals for the artificial *Nymphaea caerulea* of a necklace?

At the beginning of this review, I referred to the trustworthiness of the new plates. I have not, to be sure, been able to compare them with Mrs. Davies' copies, and it would be unusual if there were not some disappointments in so doing (cf. here p. ix); one is glad, therefore, that not only in New York, but at other centers of study—the

³ See note 2.

British Museum through Dr. Gardiner's gift of twenty-two copies and the Oriental Institute in Chicago—many of her full-scale copies are available to anyone who can profit by them. I have, however, in my library, compared without exception earlier colored plates when such exist and will now speak of two plates which illustrate strikingly better standards attained here. Plate VIII, at first glance, seems so familiar as to be superfluous; here are the oryxes of Beni Hasan, published in color in 1893 as Plate XXVII in the first volume of Percy E. Newberry's *Beni Hasan* after a water-color copy by M. W. Blackden. The older plate has long been useful, but in it the colors are less convincing, the ancient technique is unrealizable, the outlines are harsh, and some details are omitted. The new plate justifies itself by permitting the study of the brush strokes and condition of the wall, it supplies the extant rear right hoof of the standing oryx and the nipple of the standing attendant, corrects the color of the letter "t" to blue, and in every way reveals better the qualities of an important original. Plates LXXXIII and LXXXIV repeat ceiling patterns made known in color in 1878 in Prisse d'Avennes, *Histoire de l'art égyptien*, I, Architecture, Pls. 30, above, and 33, below. There, the colors are less good, but, above all else, the drawing of the spirals and other details is harder, and the pattern is regularized in a manner unnatural to the freer work of the ancient artist. These plates are indeed an addition to our means for judging ancient Egyptian painting.

With a reviewer's privilege, offering my reactions to individual plates, I would not omit a tribute to the double plate of the Médum geese, reproducing them one-fourth the size of the original painting. Because of the scarcity of good specimens for the periods antedating 1500 B.C., I wish indeed that the little-known "fragment of a gazelle" (p. 5) from the tomb of Itet, which yielded the geese, might have been included. But the latter, antedating the building of the Great Pyramids, are among the most famous of Egyptian paintings, and in the past have been repeated again and again in poor small photographic figures. I have often been asked by teachers where a colored plate of these extraordinary birds might be found, and until the appearance in 1930 of Colonel R. Minertzhausen's *Nicoll's Birds of Egypt* (see Pl. III), there was none to which one might refer inquirers.⁴ That laudable effort,

⁴ Since this review went to press, I have learned

both in scale and quality, left much to be desired, and the new Plate I here may be regarded as one of the triumphs of Mrs. Davies' volumes, to be acclaimed with delight alike by specialists and more general students. Inasmuch as the principles followed by ancient Egyptian draughtsmen did not impose a rendering of relative size, the size of given units in a design being determined by available space and relative importance, one notes with interest that here, if the three kinds of geese are correctly identified, the ancient artist did contrive in his narrow field to make the Bean goose, the largest of the three actually, largest as painted, by posing it with head down, feeding; the supposed *Branta ruficollis*, the smallest of the three, has also here noticeably small mandibles, and the portrayal of the serrations of the upper mandible of *Anser fabalis* is another of the truthful details of the original upon which one surely can depend in Mrs. Davies' copy. Also, having studied in the darkness of the rock-hewn burial chamber of Kaem'onkh of the Sixth Dynasty (2420-2270 B.C.) its painted objects and scenes, I welcome the coöperation between Professor Junker, in whose concession at Gizeh it lies, and Mrs. Davies in giving us samples from it; for the rest of the contents of the chamber's walls, we must hope that Professor Junker's own future publication will furnish other sections in color. Whether we shall ever have a better record in color of the Fourth-Dynasty stela of Wepemnofret, now at the University of California, than the details in H. F. Lutz, *Egyptian Tomb Steles and Offering Stones*, 1927, Pls. 48 and 49, depends on what Dr. Reisner, its discoverer, may have in reserve. When I studied it in 1915, the color was still well preserved.

The plates representing fine and well preserved fragments of Theban murals now in the British Museum, from the known tomb of Sebekhotpe, to which a scene still *in situ* is added, and from a somewhat later, unidentified tomb, put us especially in debt to Mrs. Davies. Although admittedly (p. xi), except for those plates showing

from *Chronique d'Égypte*, Jan. 1937, p. 64, that the Médum geese were first published in colors in Loret et Gaillard, *La faune momifiée*, 3d series, Vol. II, 1909. I add also a reference to pl. VI, 1, in W. S. Smith's important article (which has just reached me), "The Paintings of the Chapel of Atet at Médum," in *Journ. of Eg. Arch.* XXIII, 1937; the plate cited gives in excellent monochrome the fragment of a gazelle referred to above.

Cretans and other foreigners, not chosen primarily for its archaeological interest, the new material nevertheless teems with such interest. Take the boat-scene from the tomb of Pere (Pl. LVI); my attention is arrested by two sailor's whips depicted in use; for an actual whip-handle with remains of its lashes, proved by the inscription on it to have belonged to a boatman, was found by H. E. Winlock at Thebes and published by him in the Metropolitan Museum's *Bulletin*, Dec. 1923, Pt. II, p. 32, Fig. 26. As explained there, the sailor's whips have lashes about the width of a man's belt, not mere thongs as in the driving whip of a charioteer, and so they look in this tomb-painting, another instance of the essential truthfulness of Egyptian paintings. I think so, even though on page xxx reference is made, apropos of Plate LXXXVII, to "Imagination and reality . . . blended in the most charming way . . ."; this plate shows the deceased and two women relatives enjoying their garden, a tree-goddess and bird-like souls being also present. Certainly in our twentieth-century judgment imagination and poetic conception are prominent here, but to the contemporary of the ancient painter was not the scene wholly realistic, something he believed actually did or could take place? In reference to the eight "oarsmen" of Plate II, we are told (p. 7) that they are "in the attitude of pulling," but they face the bows! A similar difficulty was remarked upon by Assmann in L. Borchardt, *Das Grabdenkmal des Königs Sa'hu-re'*, II, p. 166, who concluded that the thirty rowers of a relief of the Old Kingdom in Berlin who face the bows were supposed to use their oars as paddles, even though paddles ordinarily were not shown tied by ropes to the vessel. I submit that in neither vessel under sail are the men in the position of rowing. They are inactive, inclining themselves in an attitude of respect toward the owner and officers of the vessel, an artistic propriety probably reflecting the discipline maintained on ancient ships.

Turning reluctantly from the plates, which tempt one to endless comment, I would not omit notice of Mrs. Davies' testimony that some of the very best work in the rock-hewn tombs at Thebes is in the darkest corners, where artificial light was definitely necessary to the ancient painter (p. xliv), that at Thebes outlines of the final surface were put on last (p. xxxiv), and of the various pigments used, black was the most fugitive, being adversely affected, among other conditions, by

light (pp. xlvi, 6, 54). Her account of the changes induced in the different pigments by smoke, fire, and dampness and of other factors of destruction operating in the various tombs is also of special interest (§§ 17, 18). The verb "fade" and its derivatives are much used throughout the text, often where I should think the pigments had peeled or been covered with extraneous matter not influencing their color chemically, but such is Mrs. Davies' greater familiarity with the Theban walls that others must suppose the terms used by her warranted. Her belief that "Egyptian artists were much more concerned with a brilliant colour-scheme than with the approximation of their tints to those of nature" (p. xxxviii) will be read with respect and is supported again and again in her plates, as, for example, in the alternately green and blue papyrus of Plates LXXI and LXXXIII. But this sort of thing is progressively more frequent as one follows the history of Egyptian painting and leaves unexplained the formation of some of the color habits of early days. Perhaps a fuller publication of what remains from the Old Kingdom may require a modification of the view expressed on page xxiii: "Modelling of details in plaster is absent"; also as regards the introduction of artificial blue pigment, which certainly took place before the Eleventh Dynasty (p. xxxvii). The use of the word "helmet" for the *khepresh*-headdress (p. xlvi) may be misleading to some readers. In reference to priority in identifying the symbol of Upper Egypt (p. 157), consideration should be given to L. Borchardt's remarks in *Ša'hu-re'* II, p. 33, a work published in 1913.

The editing and proof-reading have been so excellent that I have noted few errors. On page 85, 8th line from the end, however, "bow-case" should be emended to "quiver"; on page 72 under the heading "Previous Publication," in line 1, "line" should be changed to "half-tone" and in line 2, "Fine" and "pt. ii" should be deleted and the page number 59 added; on page 125, 2nd line from the bottom, *Nymphaea lotus*, not *Lotus nymphaea*, is required.

Indicative of a fairly recent change of opinion are Dr. Gardiner's renderings of ancient Egyptian personal names containing the letter which in transliterations of texts is written with a short stroke under an English "t." In his *Egyptian Grammar*, published in 1926, discussing the least objectionable English forms for such ancient names (see p. 430), he advised the use of "th"

for this letter, and the practice was required by *The Journal of Egyptian Archaeology* as late as 1931. Scholars accustomed to Thanuny and Thanūfe must now decide whether to adopt Tjanuny and Tjanūfe, as also Mentjhotpe and Netjernakhte, agreeing with Gardiner's pronouncement in 1935 in the *Supplement*⁶ to his Grammar (see p. 16) that "tj" is a "far superior convention"; accepting this, the Egyptian war-god, once "Monthu," or preferably with some scholars "Montu," becomes "Montju" (pp. 60, 154 of the books under review).

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DER TEMPEL IN ANKARA (Archäologisches Institut des deutschen Reiches: Denkmäler Antiker Architektur, vol. 3), by D. Krencker and M. Schede. Pp. 61, figs. in text 47, pls. 47. Berlin, de Gruyter & Co., 1936. RM. 54.

Two long walls and a great doorway are all that remains above ground of the temple of Augustus and Roma at the once Galatian, and now Turkish, capital city at Ankara. The ruins were first properly published in 1862 in the exquisite drawings of Edmond Guillaume in Perrot-Guillaume, *Exploration archéologique de la Galatie*, etc. Since that time, scholarly attention has been too much diverted by the supreme historical interest of the *Res Gestae Divi Augusti*, carved in a Latin and in a Greek version on these temple walls, to pay much further heed to the temple itself. But a definitive photographic record of the building with its wealth of ornamental carving was just the sort of lacuna that the German Archaeological Institute could most fittingly fill in its series of monographs on Monuments of Ancient Architecture. Extreme care to avoid any semblance of literary style or to make any suggestions provocative of dissent (with the single and fully argued exception of the Late Hellenistic date of the temple, in despite of its Augustan *Res Gestae!*) distinguish this catalogue-like description, constructed with great precision of language and complete photographic documentation. The camera has corrected Guillaume in several very minor details (and incidentally very much dampened our enthusiasm for the beauty of the carved mouldings); while a

⁶ Alan H. Gardiner and M. Gauthier-Laurent, *Supplement to Gardiner's Egyptian Grammar*. Sold by Mme. Gauthier-Laurent, 37, Avenue du Roule, Neuilly-sur-Seine (Seine).

little well-concentrated digging has brought to light the temple's true plan, of which the rather unexpected deviations from the norm find their inspiration in Magnesia on the Meander and their exact counterpart at Aezani (another temple whose *dossier* we may eagerly expect from the German archaeologists).

As a result of Schede's comparisons we may accept his conclusion that the surviving parts of the Ancyra temple are sufficiently characteristic of the second half of the second century B.C. to make this dating reasonably certain, yet venture to observe that our present-day methods of comparing architectural ornament are still too insecure and unprecise. Perhaps the best hope of progress lies in a series of just such monographs as this, with its cold and impersonal *Sachlichkeit*. Very evidently there is much to be done in this sense for the classic architecture of Asia Minor; and it would be difficult to suggest more competent workers than Krencker and Schede to produce the necessary surveys and descriptions.

RHYS CARPENTER

BRYN MAWR COLLEGE

PRELIMINARY REPORT OF THE UNIVERSITY OF MICHIGAN EXCAVATIONS AT SEPPHORIS, PALESTINE, IN 1931. Leroy Waterman, Director. Foreword by Prof. Leroy Waterman; chapters by N. E. Manasseh, S. Yeivin and Catherine S. Bunnell. Pp. xii + 86, pls. 30. Ann Arbor, University of Michigan Press, 1937. \$2.

This is a report of the excavations at Saffuriyye, ancient Sepphoris, near Nazareth. Work was carried on for only two months, but two noteworthy buildings were uncovered: an early Christian basilica and a theatre, probably erected by Herod Antipas.

The remains of a Crusader fort were investigated, as well as the ruins of an extensive system of waterworks.

Although a definite contribution to our knowledge of the site, the account is unfortunately rambling, and at times inconclusive, as, for example, when it would establish an Early Iron Age settlement at the site, merely on the basis of a single sherd and a bronze mirror and earring from a cistern, none of which is illustrated in the report. Over half of the publication is devoted to a catalogue of coins.

It is to be hoped that further excavations may be undertaken at the site to answer some of the

questions raised in the preliminary investigation.

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LE CHAMP DES ROSEAUX ET LE CHAMP DES OFFRANDES DANS LA RELIGION FUNÉRAIRE ET LA RELIGION GÉNÉRALE (*Études d'égyptologie*), by Raymond Weill. Pp. xi+176. Paris (Geuthner), 1936. 90 Frs.

The non-Egyptological reader will require some explanation of the title of this book. The Field of Reeds (Sekhet Yaru) and the Field of Offerings (Sekhet Hotep) are, roughly speaking, the ancient Egyptian equivalents of the Elysian Fields of classical mythology. They are not, however, equal to the latter in importance, being but two of the many places of sojourn and of the many forms of reward open to the blessed dead of Egypt. It is true, as M. Weill remarks, that they have received but little attention from students of Egyptian religion, but, as one struggles through the one hundred and seventy-six pages of none too well organized laboratory notes which compose the present volume, the reason for this becomes increasingly obvious. As a subject for any extensive research the blessed fields are, frankly, rather dull, and M. Weill's treatment of his topic does little to brighten it.

The principal conclusions extracted, at times rather vaguely, from a welter of quotations from the Pyramid Texts, Coffin Texts, and Book of the Dead are: that the "Fields" were imaginary, celestial localities, situated one at the eastern edge of the heavens, one at the western edge; that they were primarily solar in nature and concept and functioned in the Egyptian solar cult respectively as the point of the sun god's (and hence of the deceased Egyptian's) departure for his daily trip across the sky and as his destination and place of rest at the conclusion of the journey; that at an early period they were invaded by and to a large extent appropriated into the cult of Osiris, the process of appropriation of royal, solar perquisites by the popular god of fertility and resurrection increasing in scope through the Middle and New Kingdoms; but that, in spite of the efforts of the promulgators of his cult, Osiris never achieved a lasting place in regions celestial, and eventually withdrew to his own special and distinctly earthly domain. The discussion of the subject is introduced by an ingenious, but much too long drawn

out interpretation of an enigmatic hieroglyph (a man leaping upon the back of a rampant bull), which occurs in an Old Kingdom text referring to the Field of Offerings.

The book suffers from a lack of selection, organization, and arrangement of the material treated in it—a fact which adds unnecessarily to its length and tends always to make it heavy and confusing reading. The points are not clearly and incisively made, the development of the theme is frequently tenuous, and at times the evidence presented seems to contradict rather than to support the conclusions drawn. For example: shortly after he assails Brugsch and Maspero for supposing that the Field of Offerings was originally a real locality, situated in the eastern Delta (p. ix), M. Weill quotes an Old Kingdom text (pp. 8-9) which practically proves that such was the case.

The fact that M. Weill is a scholar whose many previous works have earned him the respect and gratitude of students of ancient Egypt makes it all the more regrettable that in *Le Champ des Roseaux et le Champ des Offrandes* he has chosen to deal so protractedly with a subject so lacking in general importance and general interest.

WILLIAM C. HAYES

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L'ALFABETO NELLA STORIA DELLA CIVILTÀ, by David Diringer. Pp. lxvii+800, pls. 327. Firenze, G. Barbèra, 1937. Lire 150.

The surprises that archaeological discoveries hold in store are well illustrated in the history of the art of writing in antiquity. Since the publication, twelve years ago, of the last survey of the scripts of mankind (H. Jensen, *Geschichte der Schrift*, Hanover, 1925), the spade of the archaeologist has uncovered documents in two new scripts, the existence of which had never been suspected. Both of them receive adequate treatment in Diringer's book. In 1930 M. Dunand published a large fragment of a stone stela found by him at Byblos during the previous year: this inscription and similar ones incised in metal found subsequently are written in a syllabary of more than eighty characters and date from 2200-1600 B.C. Although the language is probably ancient Phoenician, no progress has as yet been made towards the decipherment of this new type of writing. On the other hand, the inscriptions in a new cuneiform alphabet found at Ras Shamra

(Northern Phoenicia) in 1929 and the following years by C. F. A. Schaeffer were deciphered and translated with amazing rapidity; these texts from the ancient city of Ugarit date from about 1500 B.C.

This discovery of two hitherto unknown scripts, used in Phoenicia before the invention of the Phoenician alphabet that was destined to conquer the world, has naturally given a fresh impulse to the investigation of that perennially fascinating problem, the origin of the alphabet. Diringer considers the second part of his book, which he devotes to this problem, as the most important, confessing that he is more interested in the origin of the various scripts than in their subsequent history. Other recent discussions of this subject, that Diringer could not take into account, for his manuscript was completed in 1935, are the following: W. F. Albright, "The Early Evolution of the Hebrew Alphabet," *Bull. Am. Sch. Or. Res.* No. 66, Oct. 1936, pp. 8-12; F. W. von Bissing and A. Rehm, in Walter Otto, *Handbuch der Archäologie*, 1. Lief., 1937, pp. 145-238; Hans Bauer (d. March 6, 1937), "Der Ursprung des Alphabets," *Der Alte Orient* 36, 1-2, 1937. Among special monographs that have appeared too late for consideration in Diringer's book, one deserves special mention for its importance in the study of one of the South-Arabian alphabets: F. V. Winnett, *A Study of the Lihyanite and Thamudic Inscriptions* (The University of Toronto Press, 1937).

A rapid survey of the contents of the book will convey to the reader a notion of its encyclopaedic scope. In the general introduction the author deals with the significance of writing in the development of human culture, with the origin of writing and its earliest rudimentary traces in the pictographs and marks of prehistoric times, and with the beginnings of ideographic writing. Part I (pp. 77-234) deals with ideographic scripts (Egyptian, Mesopotamian cuneiform, Indus Valley [Mohenjo Daro], Cretan, Hittite hieroglyphs, Chinese, Easter Island, etc.), with syllabic ones (Cypriote, Japanese, Vai), and quasi-alphabetic writings (Achaemenian Persian cuneiforms, Meroitic scripts). Part II (pp. 235-330) deals with the origin of the Phoenician alphabet and its alleged relations to the Proto-Sinaitic, the Ras Shamra, the undeciphered Byblos, and other ancient writings. Part III (pp. 331-546) deals with the spread of alphabetic writing and describes the South Arabian and Ethiopic, the

Greek, the Etruscan and Italic alphabets, showing how from the old Phoenician, the Aramaic, and the Greek alphabets came most of those in use throughout the world and how the Roman alphabet is rapidly becoming universal. The various scripts of the American continent (both primitive American Indian and Mayan) are treated in Excursus I (pp. 547-612), those of India (Kharoshthi, Brähmi, Pāli, Nāgarī, etc.) in Excursus II (pp. 630-670), and enigmatic scripts, mostly oriental, in Excursus III (671-700). The Final Part (pp. 701-739) gives the general conclusion, a study of the names of the Roman letters and of the origin of the "Arabic" numerals, and a discussion of epigraphic forgeries such as the "Dighton Rock" in Massachusetts and the Runic [?] inscription on the island of Monhegan, Maine.

Independently, Diringer and H. Bauer (in the monograph mentioned above) reach similar conclusions in regard to the origin of the Old Phoenician alphabet, the ancestor of our own: this alphabet was substantially identical with that of its oldest relic, the Akhiram inscription (dating from the thirteenth or twelfth century B.C. and discovered at Byblos in 1923), and was invented not very long before (Diringer: eighteenth century; Bauer: ca. 1300); it was not evolved from any system of writing in use at the time (Cretan, Cypriote, Egyptian, Proto-Sinaitic, Ras Shamra, Babylonian, Hittite hieroglyphs, etc., each one of which has been regarded by some scholar as the parent of this alphabet), but it was a purely arbitrary selection of 22 conventional signs chosen to represent the consonants of Hebrew-Phoenician: Diringer questions, and Bauer positively contests, the original pictographic appearance of the signs and the application of the principle of acrophony ('aleph: ox[']; beth: house [b]; etc.) in their selection, and both admit that the resemblance of some of the letters to signs of earlier scripts is more or less accidental. This simple and sane theory seems to the reviewer to be the closest approach possible, with our present data, to a solution of the problem of the origin of the alphabet.

Diringer has given us the most complete study of the art of writing available in one volume: the full alphabetical index, the well selected bibliographical references in the notes, and the numerous tables and illustrations, make of it an invaluable manual for quick reference. But the book is much more than that: it is not only a synthesis of

our present knowledge on the subject, but a lucid and sensible presentation of the results of careful research.

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BRONZEWERKSTÄTTEN IN GROSSGRIECHENLAND UND SIZILIEN von Ulf Jantzen. Jahrbuch des Deutschen Archäologischen Instituts, Drei-zehnts Ergänzungsheft. Walter de Gruyter & Co., Berlin, 1937. 22 Marks.

This doctor's dissertation is an attempt to differentiate the bronzes of South Italy from those of Greece proper, and assign them to their local schools—Locri, Tarentum, Croton, Sicily. The attempt is most welcome, for Langlotz in his *Fruehgriechische Bildhauerschulen* (1927) confined himself to Eastern Greece, and Western Greek bronzes—apart from those of Etruria—needed definition.

As usual these reconstructions of schools are based primarily on those comparatively rare pieces of which the provenance is definitely known, that is, which come from scientific excavations. In all other instances the provenance is bound to be tentative, though now and then circumstances may make it reasonably trustworthy. The temptation is to add to the meagre lists of examples of which the source is known others of unknown provenance on stylistic grounds. Such attributions naturally carry varying degrees of conviction; but as long as we realize that we are playing a game in which a certain solution can seldom be attained, these guesses may have fruitful results. There is no doubt that the members of Dr. Jantzen's groups have often a marked family likeness, and that therefore his efforts have shed new light on the art of South Italy. In his main objective, therefore, he may be said to have been eminently successful.

On the other hand, it is confusing to mix probable and doubtful attributions. For instance, it is not helpful to list the little bronze horseman in New York (*B. Metr. Mus.* XVIII, 1923, p. 74, fig. 3) as definitely Tarentine, when we know that it comes from Greece, not Italy. And perhaps it would have been safer for Dr. Jantzen to confine himself to one large South Italian school and to distinguish it clearly from the schools of the mother country and of Etruria, instead of attempting a number of subdivisions. At least the schools of Croton and of Sicily do not emerge as convincingly as one might wish. And would not

comparisons with South Italian coins and terracottas have been helpful?

In the appendix are useful lists of bronze mirror stands, kouroi, riders etc. It is suggested that several of the bronze kouroi listed by Deonna "sind zu streichen, da nichtgriechisch," including the one from Piombino in the Louvre. But in what list, one may ask, should this statue be placed? It is surely not Italic or Etruscan, and is hardly a Roman copy.

The plates contain for the most part excellent reproductions often of little known material. The author is to be congratulated on a most interesting contribution.

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DIE ANTIKEN SKULPTUREN DER ERMITAGE, DRITTER TEIL, by Oskar Waldhauer. Archäologische Mitteilungen aus russischen Sammlungen 5. Pp. 1-84, figs. in text 107, pls. 44. Berlin, Walter de Gruyter & Co., 1936.

This is the last of three important volumes, in which the late Russian archaeologist (d. 1935) has published the important and for a long time neglected Greek and Roman sculptures of the Ermitage. The first volume (*Mitt.* 1, 1928) contained the statues and heads of bearded gods and men; the second (*Mitt.* 3, 1931) the statues and heads of youthful gods and men. This last volume containing statues and heads of women brings to a close the monumental work. It has been revised after the death of the author in relation to the newest literature by K. Gebauer.

Waldhauer was a pupil of Furtwängler and was therefore the proper person to handle a collection consisting mostly of Roman copies derived from Greek masterpieces, and with old-fashioned restorations, which till now had made the use of the material difficult, principally as it was mostly known only in inadequate reproductions. By publishing good reproductions and a clear description, Waldhauer makes a study of the material easy for us. The work is the ripe fruit of a development, which belongs to the past and the present, not the future. We no longer build museums of the aristocratic type of the eighteenth and nineteenth centuries, like most of those in European countries, which, like the Vatican, use the ancient statues as decorations of palatial buildings, but we remodel them, as the Berlin and London Museums have done, or we create, as

the Metropolitan Museum in New York and the Boston Museum of Fine Arts, historical museums with rooms neutral in themselves, which serve to give the best lighting and position to each individual piece. It is fortunate that the last big collection of the old type has now a catalogue after the model of Amelung's Vatican, Stuart Jones' Capitoline or my Kassel catalogue, presenting and discussing the historical and aesthetic problems connected with each single piece of sculpture. Thus the way is prepared for a new history of Greek sculpture, which still remains to be written, and which will make use of all the new discoveries in the field of archaic, Hellenistic, and Graeco-Roman art, which are now *sub judice*. In this connection I wish to point to the types of Asklepios in Vol. I, Nos. 2-5, 43-47, which can be used for the necessary reclassification of the types of Asklepios, which I am preparing for the "Einzelfunde von Kos," or the types of Aphrodite in Vol. III, Nos. 225-246, 308-319, which can be used for an equally necessary reclassification of the Hellenistic types of Aphrodite, for which Bernoulli, *Aphrodite* (1873) is long out of date and Klein, *Vom antiken Rokoko* (1921), not sufficient.

It is to be regretted that Waldhauer's investigations in the classifying and dating of copies have never been completed or published. He is too much inclined to regard as copies of Greek works a number of purely Roman works. He thus dates No. 213, pl. I in the first half of the fifth century. But it is clearly Roman archaic, not only on account of the material, green basalt. It is full of elements strange to the fifth century. The type of the Gorgo head and the sharp folds remind one of the Tyche in Munich (Bulle, *Archaisierende Rundplastik*, p. 26, Nr. 50, pl. 7). The mixture of styles seems to me to point to the Antonine period.

No. 217, p. 3, pl. V does not belong to the fifth, but to the fourth century (cf. Amelung, *Röm. Mitt.* XXXVIII-XXXIX, 1923-4, p. 51, note 1 and *Sculpturen des Vatikanischen Museums* I, 190 Gall. lap. Nr. 29).

No. 225, pp. 8 f., pl. IX. The addition of another chiton is perhaps not required by decency but is due to the honor of the stola, an extra dress given to worthy Roman matrons.

No. 228, pp. 10 f., pl. XI-XII. This remodeling of the Genetrix seems to me Roman, not Hellenistic. The head is classicising. The girdle is added after the fashion of the Elektra of the Stephanos

group and of the Flora Farnese, both belonging to the early Imperial period.

Nos. 232, 234, 235, pp. 12 ff., figs. 9, 11, 12. I wish that the name Anadyomene, used in antiquity for the Aphrodite of Apelles emerging from the sea would cease to be misused for statues of Aphrodite clearly showing her after she has emerged from her bath and is binding up her hair.

No. 248, p. 20, pls. XIV-XV. Cf. the many replicas: von Salis, *Jb. Arch.* I. XXVIII, 1913, pp. 1 ff. Svoronos, *Athenener Nationalmuseum*, Nrs. 248-253, pls. XIV-XVI. I believe with von Salis that the original goes back to Agoracritus.

No. 260, pp. 26 ff., pls. XVIII-XIX. Good discussion of the intricate problems of statues of the Muses. If the original should be of the fourth century, I think Kephisodotos' Muses on Mount Helicon (Paus. IX, 30, 1) ought to have been mentioned, as the head of the Petersburg Muse is decidedly close to the Irene. But I think Waldhauer is right in considering the Muse part of a later classicising composition. I would like to call to mind the Muses of Philiskos, who was probably a classicising artist adapting older groups of Muses for Rome (cf. Bieber in "Antike Plastik," *Festschrift für Amelung*, p. 22).

No. 261, p. 28, pl. XX. Interesting interpretation of the suppliant Barberini as an awakening Erinnys, with an attribution to Kalamis. This is based on the snake coiling down from the left shoulder to the right thigh and up to the right hand, as discovered by Hauser, of which traces are found on the Petersburg replica. The only trouble is that Waldhauer did not remember Paus. I 28, 6: These figures of the Eumenides or Erinnyses had no horrible attributes such as the snakes given to them by Aeschylus.

No. 264, pp. 29 f., pl. XXII. The female head named Artemis by Waldhauer is the nearest to the head of the supporting figure from Loukou in Athens, representing the Amazon by Pheidias (Bieber, *Jb. Arch.* I. XXXIII, 1918, pp. 73 ff., fig. 15; G. Richter, *Sculpture and Sculptors of the Greeks*, pp. 228 and 549, fig. 618) I have ever seen. Could we be so fortunate as to possess at last a lifesize copy of the head of the Pheidian Amazon?

No. 271, p. 34, fig. 33. I do not see why this slight work should be older than the bulk of the early Hellenistic, late Praxitelean-Alexandrine heads.

No. 278, p. 36, pl. XXIX, 2. The interpreta-

tion, which Waldhauer does not give, is probably Persephone and the dedicatrix of the group, who has been initiated into the Eleusinian mysteries and has dedicated this group, made of Pentelic marble, showing him under the protection of the goddess in Eleusis.

No. 386, p. 43, pl. XXXV. The arms of the Aura seem to be restored. Their movement is clumsy compared to the elegant Augustan figure.

Nos. 287 and 289, pp. 44 ff., figs. 38 and 40 are exchanged. The Erato, 289, p. 46 (fig. 38 and not 40) has, in my opinion, no relation to the Are of Philiskos (Makridy Bey, *Jb. Arch. I.* XXVII, 1912, pp. 17 ff., pl. 4; Schede, *Röm. Mitt.* XXXV, 1920, pp. 65 ff.; Bieber, "Antike Plastik," *Festschrift für Amelung*, p. 23, Abb. 10).

No. 300, p. 54, pl. XXXVIII. This sacrificing woman may be the work of one of the sculptors listed by Pliny, 34, 91, as sculptors of *sacrificantes*.

No. 301, pp. 54 f., pl. XXXVIII. For replicas of this type cf. Bieber in Arndt-Amelung, *Einzelaufnahmen antiker Skulpturen* Nrs. 3219–3221.

Nos. 308–316, 318–319, pp. 38 ff., figs. 54, 62, 64, 65. Most of these fragments and statuettes of female figures seem to me to come from small votive statuettes of Aphrodite. The whole group needs a new investigation and dating (cf. Klein, *Vom Antiken Rokoko*, pp. 88 ff., pl. III, figs. 36–41; pp. 104 f., fig. 44).

No. 320, pp. 64 f., fig. 66 looks to me like the fragment of a mask.

No. 324, pp. 67 ff., fig. 68, pl. XLIII. It seems clear to me that the hair is not being wrung out but arranged. If it were being twisted to press water from it, it would not be lifted so high and so near to the crown of the head with the right hand.

No. 325, p. 68, figs. 69–70. Eduard Schmidt (*Jb. Arch. I.* XLVII, 1932, pp. 263 ff., figs. 13–28 and XLIX, 1934, pp. 200 ff., fig. 10) not only publishes replicas of the head, but believes that he has found the missing body in a torso from Ephesus. Unfortunately the bust of the Leningrad replica does not agree with this torso, either in the arrangement of the drapery on the left shoulder, or in the upper line of the chiton; nor in the arrangement of the himation over the right breast, nor in the style. The Ephesus torso is Hellenistic; it frames the right breast with heavy folds. The Leningrad bust lays flat folds over the breast. The sweet fourth-century head is too small for the matronly torso with its womanly broad breast and hips.

No. 350, pp. 81 f., fig. 103. Probably a priestess with the fillet of knotted wool.

A list on p. 85 of all the sculptures of the three volumes adds to the usefulness of the catalogue.

For the first two volumes cf. the good reviews by G. Lippold, *Deutsche Literaturzeitung* 33, 1928, pp. 1603 ff., and 35, 1932, p. 1661 ff.; by B. Ashmole, *J.H.S.* 52, 1932, pp. 137 ff. and by O. Brendel, *Gnomon* 10, 1934, pp. 230 ff.

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MILET: ERGEBNISSE DER AUSGRABUNGEN UND
UNTERSUCHUNGEN SEIT DEM JAHRE 1899. Vol.
III^a: Das Südliche Ionien, by Alfred Philippson. Pp. 32, pls. 3, folding map. Walter de Gruyter & Co., Berlin and Leipzig, 1936.

Not Miletus itself, but the sub-title seems to have motivated and justified the inclusion of this seemingly irrelevant but extremely useful map and geological monograph on the Asia Minor coast from Ephesus to Didyma, in which the excavations of Miletus are set in the widest possible frame of river, shoreland, mountain, and the lapse of time. The Prussian General Staff apparently desired that something better than Kiepert's well-known map of Asia Minor should be at the disposal of the archaeologists, and detailed a highly competent staff-officer to collate and supplement the already completed surveys of the territory around Ephesus, Miletus, and the Latmus Mountain—with most satisfactory result. The comparatively large-scale (1: 100,000) map of Southern Ionia is accompanied by a highly condensed treatise on the geological geography of that region by the old master to whom most classical scholars owe what little geological knowledge of Greece and Asia Minor they may possess. The combination of detail and broad perspective is admirable. However slight may be the connection with the archaeological world, it would be a rare archaeologist (or classical historian) who could work his way through the concentratedly brief pages of "Milet III^a" without genuine profit and appreciation.

RHYS CARPENTER

BRYN MAWR COLLEGE

A STUDY OF THE GREEK LOVE-NAMES, Including
a Discussion of Paederasty and a Prosopographia. By David M. Robinson, Ph.D., Litt.D., and Edward J. Fluck, Ph.D. (The Johns Hopkins University Studies in Archaeology, No.

23.) Pp. vii+204, 1 pl. Baltimore: The Johns Hopkins Press, 1937. \$3.

Not since Klein's *Die Griechischen Vasen mit Lieblingsinschriften* appeared in 1898, has any systematic study been made of the problems evoked by the love-names on vases. This book elaborates and brings up to date Klein's material, and, indeed, is far wider in its scope, embracing, as it does, such inscriptions on other works of art as well, and devoting a chapter to the evidence afforded by extant Greek literature. A discussion of the purpose of *Kαλός* names on vases is followed by a chapter devoted to the homosexual customs of the Greeks, entitled "The Love-Names in Greek Literature." This chapter shows very careful, thorough scholarship, and will doubtless be very useful for reference purposes. Then follows a list of names culled from sources other than vases in Greek literature or art, which is up-to-date, and has been very badly needed. The last chapter lists the names that appear on Attic vases. It supplements Klein, but does not replace him, for it does not pretend to give a complete catalogue of all known vases with love-names, which would have been extremely valuable, and is, in fact, a most urgent need on the part of students of vases. Too often in this chapter the authors are content to refer to Klein or Beazley, rather than bring together, as they might well have done, all vases known, whether signed or not, with the love-name in question. Thus, to this reviewer at least, to cite a concrete example, the treatment of Onetorides, the favorite of Exekias, is most unsatisfactory. It should have been pointed out that the presence of this name on an unsigned vase has been considered a good indication for attributing it to Exekias—as witness a hydria in the Metropolitan Museum in New York, and an amphora in the University Museum in Philadelphia. It seems to this reviewer that a great opportunity was lost in not making this book a *Corpus* of vases with *Kαλός* names.

In an Appendix, a few *Kαλός* names on non-Attic vases are briefly listed, and no omissions seem to have been made.

The book itself is well and strongly made. The typography does not appeal to this reviewer—the letters in each word are set a little too close together, and the smaller fonts are hard on the eyes. The pagination is good, with wide margins. The price (\$3) seems at first glance a little high for the book, but, owing to its many footnotes and the exacting nature of the text from a proof-

reader's point of view, is probably not excessive.

STEPHEN BLEECKER LUCE

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BYZANZ: VORARBEITEN ZUR TOPOGRAPHIE UND ARCHÄOLOGIE DER STADT, Vol. 8 of *Istanbuler Forschungen* of the German Archaeological Institute, by A. M. Schneider. Pp. 96, figs. in text 50, pls. 10, folding map. Berlin, 1936.

It is the fate of all world capitals that continuous habitation makes their remoter past unavailable to the archaeologist; but no great city has more successfully destroyed and concealed itself than Constantinople. We know, and can find out, almost nothing about classical Byzantium, and even the great Constantinople of the later Roman emperors is sadly elusive. How different our perspective might become through ambitious excavations such as have uncovered the topography of Rome and Athens, can only be surmised: but it is probable that even then a pessimistic forecast would be nearest to the truth.

Thus it is that the author of the present monograph can remark with complete justice that a comprehensive Topography of Constantinople is utterly out of the question and offers us instead a few proerga and prolegomena, necessarily disjointed and incoherent. They are none the less valuable. Unfantastic honesty and industrious realism make the only possible technique for this pursuit. Gorgeous descriptions must be left to the Byzantinist with a flair for his medium. In Schneider's pages there is only sober, unexciting description, a scholarly listing of actualities.

Among his contributions are a large folding "topographical-archaeological" plan of the city (the best yet published, since it is based on the post-war official city survey) with indications of the present state of our knowledge of the location and extent of the various monuments; an alphabetic commentary to this plan, summarizing the known history, quoting the antiquarian literature, and supplying small-scale plans for several of the churches; a catalogue of the Greek churches mentioned in sources later than the Turkish capture of the city, with their probable location and modern identification when still extant; brief notes on some of the Hagia Sophia mosaics; shorter studies on various buildings and public places which have been topographically troublesome. It would be impertinent in a reviewer at a distance to offer criticisms or objections on such a wealth of carefully assembled material.

The function and utility of Schneider's monograph will, it is hoped, be apparent from this brief notice. Only the library which wishes to control all important working material need put the book on its shelves; but nobody who seriously intends to attack the history and topography of the great city on the Golden Horn can afford to ignore it.

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The Journal of Roman Studies, Vol. XXVII, 1937, Part 1. PAPERS PRESENTED TO SIR HENRY STUART JONES, LL.D., D.Litt., F.B.A. Pp. 156, 6 figs. in text, pls. 20. London, Society for the Promotion of Roman Studies, 1937. 15s. ("For the convenience of readers who may wish to bind this part of the *Journal* independently, a separate title-page has been included.")

Special attention would be attracted by any issue of a learned periodical, the table of contents of which revealed, *inter alia*, Professor Franz Cumont dealing with an episode in the field of Mithraic studies, with which for so many years his name has been associated; Professor Frank contributing notes on Roman commerce; Professor Last considering the methods by which the study of the "Persecutions" may profitably be conducted; and Sir George Macdonald interpreting the Tacitean phrase (*Hist.*, i. 2) *perdomita Britannia et statim omissa*. But this publication has further claims on the regard of scholars. The admirable impression which it produces will strengthen a tradition which has developed in recent years: the rendering of homage to a distinguished and deserving colleague by means not of an entirely independent volume in his honor, but of a single number of a current periodical, specifically adapted to the purpose: a *Festschrift* that will immediately find its way to the libraries, and at the same time a scientific unit upon which a distinct stamp has been conferred by the circumstances of its production.

VIRO ERVDITISSIMO... QVI PLERASQVE ARTES ET DOCTRINAS AMPLEXVS FI- DEM INGENIVM INDVSTRIAM ROMANIS STVDIIS PRAECIPVE IMPENDIT ANNOS IAM LXX EMENSO...: the lapidary brevity of this stately dedication is expanded by eight pages of bibliography of Sir Henry Stuart Jones' writings; and the Prefatory Note explains that "the present set of papers . . . necessarily reflects only one aspect of his work": although "Greek studies alone have occupied a large part of his

life," still he has achieved "a foremost place among students of ancient Rome."

The field concerned is, in effect, Roman administrative and religious antiquities; the contributions of H. I. Bell, U. Wilcken, and A. Wilhelm are reminders of the extent to which these studies are now indebted to the evidence of the papyri and related documents. The seventeen articles are due to distinguished representatives of the scholarship of five nations; they afford a clear picture of the present state of this branch of historical science; and additional interest is aroused by the circumstance that several of them are first-fruits, holding out the promise of more extensive publications to come and affording a glimpse into work that is still in progress.

Our age is witnessing among other things the rewriting of ancient history in terms of "propaganda." This appears in an attractive, and largely convincing, form in M. P. Charlesworth's study of the attitude assumed by the Flavians towards their predecessors. But it is difficult to compress into the space of hardly more than two pages (pp. 54-57) that portion of the theme which, for the interpretation of the buildings in the Capital, possesses the greatest interest—the contrast between Nero and Vespasian—without running the risk of "telescoping" the evidence: the result is too compact to represent tendencies which spread over two and a half decades, and which themselves were of diverse natures. There should be a distinction between the Vespasianic and the Domitianic documents: the former emperor, whose principate was separated from that of Nero by a very troubled period which witnessed the burning of the edifices on the Capitoline Hill, was very restrained in his public and official utterances in hinting at the contrast between his own and the previous administrations; he limited himself to a record of his own efficient conduct of affairs and a statement, in few words, of abuses rectified or arrears with which he had coped; while in the encyclopaedia of Pliny, the only contemporary Latin writer of consequence who enters into consideration, Nero is of interest not as an administrator but as a monster, a pathological exhibit; Josephus likewise is not to the point.

This renders it all the more desirable to reconsider the date of Martial's *Liber Spectaculorum*, and in particular of *Spect.* 1 and 2, the second of which concludes with the familiar lines of Flavian flattery and propaganda:

*Reddita Roma sibi est et sunt te praeside, Caesar,
deliciae populi que fuerant domini.*

The consensus of modern scholarship (e.g. K. Scott, *The Imperial Cult under the Flavians*, Stuttgart-Berlin, 1936, pp. 55–60, 106) assigns the composition and publication of either all or a large part of the *Spect.* to the inaugural games of the great Amphitheater as partially completed by Titus in A.D. 80. Yet the presence of Domitianic elements in the collection has been seriously considered by some (Friedländer's ed., pp. 51, 134–138). The writing of these thirty-two or so occasional pieces might have been expected to extend over a considerable length of time and to have been inspired by various spectacles. Some details in the descriptions would have applied equally well to Domitian's or to Titus' exhibits. The parallel between *Spect.*, 4 and Suet., *Tit.*, 8, 5, becomes closer if, as I would propose, *Getulis* is to be emended to *Gyaris*; but Domitian also sent informers into exile (*Dom.*, 9, 2).

In *Spect.*, 2, the mention of the Baths of Titus has been taken as evidence for a date in A.D. 80; but it is in fact one of a series of indications which fix several important points in the topography of Nero's park: the passage is reminiscent of Ovid, *Fast.*, vi, 401–406 (where surely in 401 *hic* is to be read and the whole phrase serves as object of *tenuere*), and, like its prototype, it suggests the contrast between the past and the present state of the region. Of the several monuments cited, the Claudian Portico was probably due to Vespasian; the Colossus was erected by Nero and adapted by Vespasian; and if the neighboring *pegmata*, as is highly probable, were the cranes for constructing the extant Arch of Titus, this tends to place the epigram later than Titus' inauguration of the Amphitheater: for the seats in that edifice were being allotted (*C.I.L.* VI, 2059 = 32363 = *I.L.S.*, 5049) after June 13 in A.D. 80, the inscription of the Arch of Titus in the Circus Maximus (*C.I.L.* VI, 944 = *I.L.S.*, 264) denotes him as *trib. potest. X* (July, 80–81), and the extant arch represents his apotheosis, denominates him *divus*, and has definitely Domitianic characteristics in its ornamentation—it appears to be the latest undertaking of the three. However, each arch inscription may have been composed at a late stage in the construction.

The problem is not simple; but perhaps progress towards a solution may be achieved along another line of approach, namely the consideration of the character of some of the epigrams and

of the personal tastes and inclinations which they imply in the prince to whom they were addressed or under whose cognizance they might be expected to fall. The natures of the two brothers stand out in the pages of Suetonius: Titus (*Tit.*, 7, 1), *neque vitio ullo reperto et contra virtutibus summis*; Domitian, a megalomaniac (*Dom.*, *passim*) and a monster of sadistic cruelty (*Dom.*, 3; 10; 11: *non solum magnae sed etiam callidae inopinataeque saevitiae*). Not only does *Spect.*, 1, possess several turns of expression in common with *Ep.*, VIII, 36, the exaltation of Domitian's palace, but it is permeated by the same megalomania. And *Spect.*, 7–8, 12–14, are disfigured by sadistic symptoms which would have unfitted them for presentation to Titus, but which accord with the tendencies of his successor. Apart from this, the assignment of *Spect.*, 1 and 2, to the year 80 leaves an inexplicable lacuna in the *corpus* of Martial's verse: where are the epigrams in praise of the Amphitheater which Domitian's spectacles after the definitive completion of that vast pile (Suet., *Dom.*, 4: *Spectacula assidue magnifica et sumptuosa edidit*) were certain to evoke from so facile and opportunist a versifier? Even if Martial had already celebrated the dedication by Titus, it might have seemed expedient to adjust his verses to the new times. Suetonius (*Dom.*, 2, 3; 13, 1) tells of Domitian's efforts to ignore the achievements of his father and brother; he also says (*Dom.*, 5): *Plurima . . . restituit, . . . sed omnia sub titulo tantum suo ac sine ulla pristini auctoris memoria.* And in fact the nomenclature of the Amphitheater—to which apparently no distinguishing epithet was attached in antiquity except for the ambiguous *Caesareo* of *Spect.*, 1—presents a certain analogy with that of Claudius' harbor, which appears on the coins of Nero as *AVGVSTI POR. OST. or PORT. AVG.*

It is possible to accept as a restating of the official Domitianic version of Flavian contributions to Roman building, as contrasted with those of Nero, the sentence: "After the Great Fire of A.D. 64 Nero's grandiose schemes for the rebuilding of Rome had resulted merely in the Domus Aurea that threatened to engulf the city": but, despite the clever pasquinade of Neronian times, *Roma domus fiet*, etc., such a statement would have accorded too ill with the facts to be effective at an earlier date. Tacitus, *Ann.*, xv, 43, records not only projects, but some degree of achievement as well; and Suet., *Vesp.*, 8, 5, *Deformis urbs veteribus incendiis ac ruinis erat*, need not cause diffi-

culty to anyone who has visited the scene of some conflagration of a few years ago: the populace first establish themselves in the outlying or undamaged quarters of the city, then the central parts are rebuilt piecemeal, leaving between the new edifices the vestiges of the former city. Naturally many undertakings that had been started before A.D. 68 were not completed until some years later. Eventually, the attractions of the Circus Maximus as reconditioned by Nero were outshone by the splendors of the huge Amphitheater, and the vast series of arcaded structures that flanked the Neronian Sacred Way were overshadowed by the temple and precinct of Peace; and—as hinted above—it is a Roman tradition that with monumental edifices are associated the names not of their originators but of those who have had the fortune to inaugurate them.

Many readers of *A.J.A.* will turn first to the richly illustrated study by Mrs. Strong (pp. 114–126), and there they will find inspiration which will carry them far along lines of religious and historical interpretation. The title is “*Terra Mater or Italia?*”—a subject which elicits all the knowledge of the monuments and all the charm of presentation which distinguish the author. Mrs. Strong has collected “a considerable amount of *Terra Mater* material,” in view of a *corpus*, of which she now offers “a first fragment.” In these circumstances it may not be amiss to suggest the advisability of excluding from future discussion all analogues (revivals? adaptations?) from Renaissance and later times: the ancient material is so vast, and requires so delicate a treatment, that extraneous matter can only dull one’s vision for what is essential. Is a further observation permissible? The admirable photographs of ancient representations here produced suggest that these are derived from two distinct conceptions of the Earth Goddess. First, there is the more youthful personification of the fruitful earth, reclining on the ground, half-draped, generally gazing upwards; sometimes there is a mass of fruits and flowers in her lap; generally she is without children, and when they do appear it is as accessories, not as receiving maternal care. The second conception—far less frequent, like the enthroned goddess, who is not here represented—is that of a matronly figure caring for her children: and in these two types, if anywhere in art, can be discerned the distinction between *Tellus* and *Terra Mater*. Minor variations occur, and on the

Gemma Augustea the group is modified to suit its subordinate position in a larger whole. The inevitable *contaminatio* had doubtless appeared far earlier than the products of Carolingian art here published.

In these years of Augustan commemoration, it was natural that the considerations of cosmic import with which the first sections of this article are replete should lead to a fresh examination of the familiar relief from the Ara Pacis which possesses several elements in common with the second class of representation just described, but for which the present writer had ventured to propose the identification as *Italia* (*J.R.S.* III, 1913, pp. 134–141). Mrs. Strong has not seen her way clear to follow that line of thought: yet recent studies, while tending to place the artistic qualities of the relief in a somewhat different light (C. Picard, in *Rev. des Etudes Latines* XIV, 1936, p. 158), have not materially altered the elements in the problem of interpretation. And surely both *Italia* and *Roma* were noble conceptions in the Augustan Age, worthy to face each other as guardians of the threshold at the back of this monument; its sides presented the parallel processions of the Julian House and the Roman people, advancing towards the front entrance, which itself was flanked by *Aeneas* and *Romulus*, half-divine, half-legendary ancestors, personifications of the two great Roman virtues, *pietas* and *concordia: moribus antiquis res stat Romana virisque!* Within the enclosure, not on the external frieze, was the domain of the Earth Goddess: for hers was the Peace to whom the altar was dedicated, the gift of Italy and Rome to the world.

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A KOMINI ÉREMELET (A KR. U. III SZÁZADBÓL).
THE HOARD OF KOMIN (ANTONINIANI OF THE THIRD CENTURY A.D.), by Z. Barczay-Amant. Dissertationes Pannonicae, Series 2, No. 5. Pp. 15, pls. 63. O. Harrasowitz, Leipzig, or Pázmány-Universität, Múzeum-körut 6–8, Budapest, VIII, Budapest, 1937. Pengö 25.

The important hoard found at Komin (Jugoslavia) in 1918 contained 19,755 Antoniniani, of which Zoltán Barczay-Amant here presents a summary account based both on a preliminary study by J. Brunsmid and on 4,458 rubbings made by Prof. Alföldi.

After a short introduction in Hungarian (pp. 3–5), followed by an English translation thereof

(pp. 7-9), we find an index (pp. 10-15) of the reverse inscriptions arranged alphabetically under the nineteen emperors, empresses and caesars from Trebonianus Gallus to Tacitus, chronologically arranged, whose coins composed the hoard. The remainder of the volume is devoted to the sixty-three plates reproducing the manuscript catalogue of the 1,308 separate varieties contained in the hoard. These are listed in two columns according to their mints (Roma, Mediolanum, Ticinum, Monetae Gallicae, Siscia, Viminacium, Serdica, Kyzikos, Antiochia, Tripolis, Moneta Ignota Peninsulae Balcanicae, Moneta Orientis Incerta), and subdivided according to emperors. The issues of each emperor and of the members of his family are arranged in the usual chronological groups. At the head of each group is given the obverse inscription, accompanied by Col. Voetter's shorthand indication of the details of the imperial bust. Beneath, in five columns, come the number assigned to each variety, the reverse inscription, a line drawing of the reverse type, the mint marks and the number of specimens studied, and, finally, abbreviated references to the various works (of Cohen, Webb, Alföldi and Voetter) which form the basis of the attributions. While these abbreviations are intelligible to anyone thoroughly conversant with the coins, a brief explanation would have greatly facilitated

their use by others. The manner of arrangement and reproduction afford a quickly comprehensible view of the hoard's contents, but even greater ease in use would have been obtained if the name of the issuing mint had been repeated at the top of each plate.

Turning to the material itself, the mints of Rome, Milan and Siscia are naturally well represented. Those of Cyzicus and Antioch, considering the origin of the hoard, are also well represented. The remainder are more or less fragmentary. Antioch would have shown up better if the coins assembled under the heading Moneta Orientis Incerta had been included, which (with a few exceptions) they should have been, in the reviewer's opinion. On the other hand, a few varieties actually given to Antioch have recently been shown to belong, probably, to an "emergency mint" established during the period when Antioch was in the hands of the Persians under Sapor.

Only a few errors, mostly of a minor nature, are noticeable in a somewhat cursory glance through the pages, and the author's zeal and labor should be heartily commended. The hoard of Komin, as it is here presented, should be a most valuable source for future students of the period.

E. T. NEWELL

NUMISMATIC SOCIETY

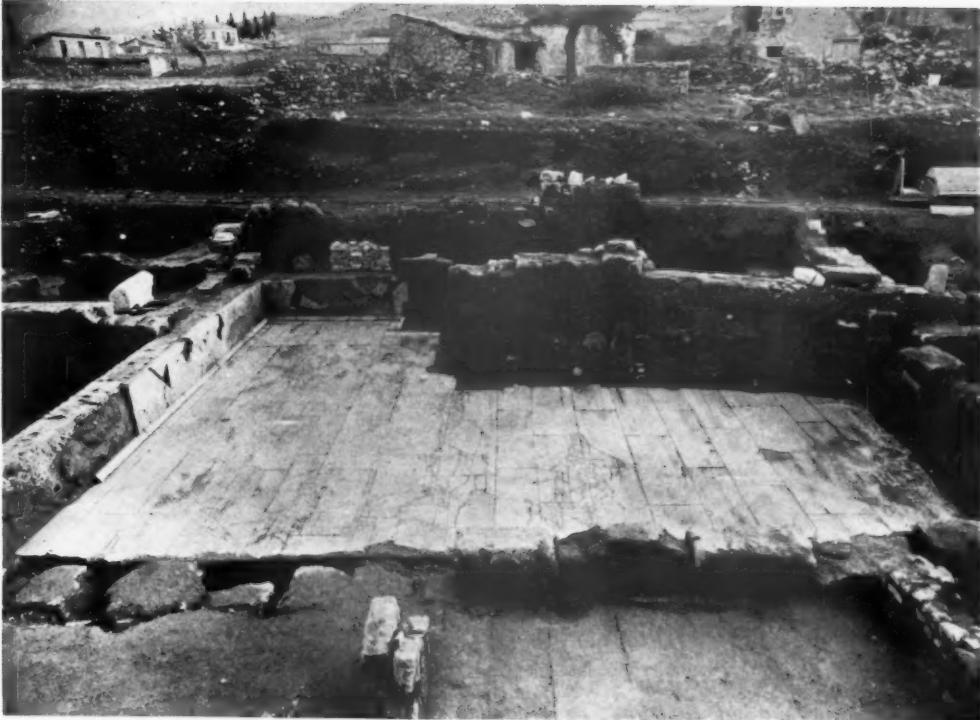


PLATE XI, 1.—LARGE ROOM IN SOUTH STOA



PLATE XI, 2.—LIGHT WELL IN SOUTH STOA



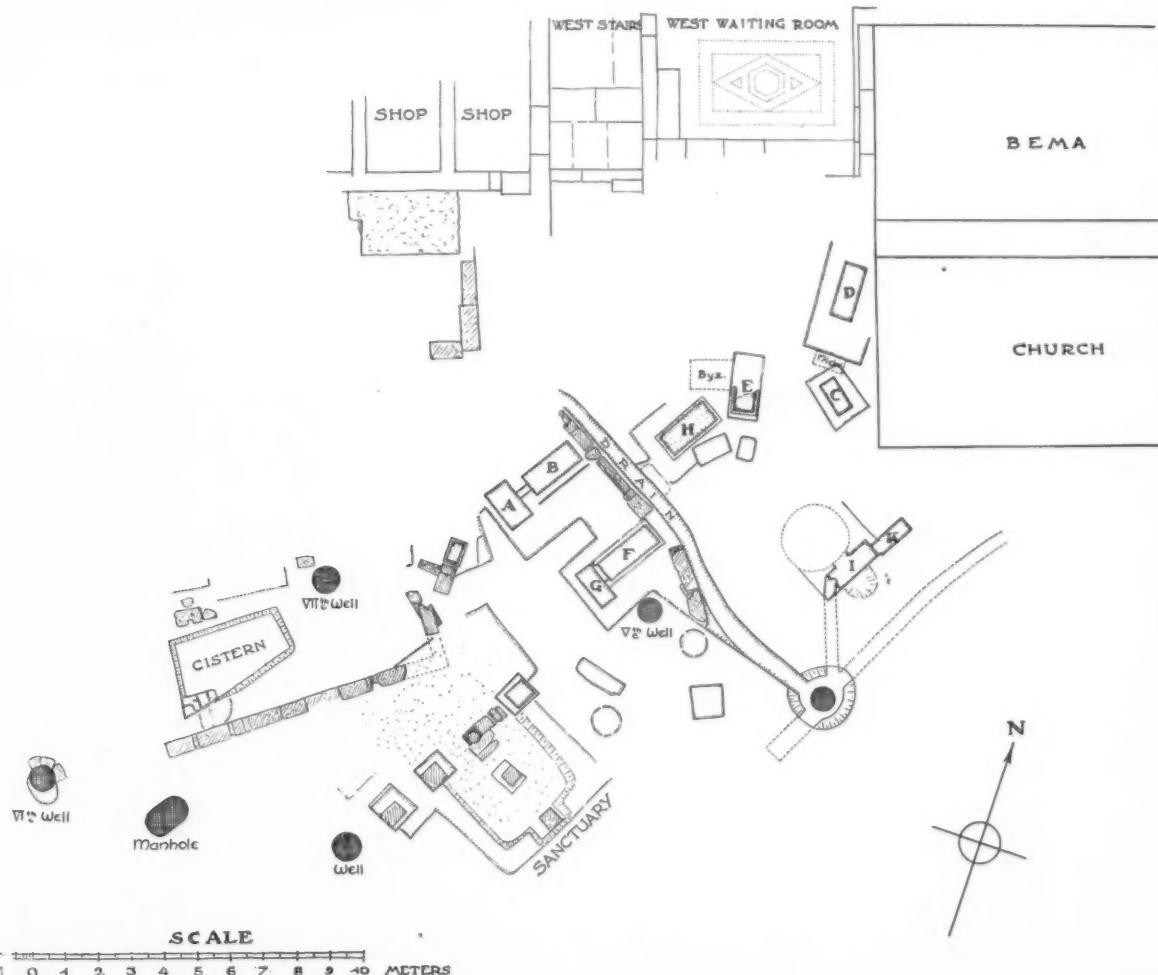
PLATE XII, 1.—SOUTHWEST CORNER OF CRYPTOPORTICUS, SOUTH BASILICA



PLATE XII, 2.—THE FOUNDATION OF THE BABBIUS MONUMENT FROM THE NORTHEAST



PLATE XIII, 1.—AGORA SOUTH CENTRAL AREA FROM THE WEST



SOUTH STOÀ STYLOBATE

PLATE XIII, 2.—AGORA SOUTH CENTRAL AREA



PLATE XIV, 1.—CONNECTED GEOMETRIC GRAVES FROM THE NORTH



PLATE XIV, 2.—ALTAR PIT FROM THE WEST



PLATE XV, 1.—NINTH CENTURY A.D. CHAPEL FROM THE WEST



PLATE XV, 2.—THE AGORA NORTHEAST AREA FROM THE NORTHEAST

PLATE XVI.—THE AGORA NORTHEAST AREA. PLAN

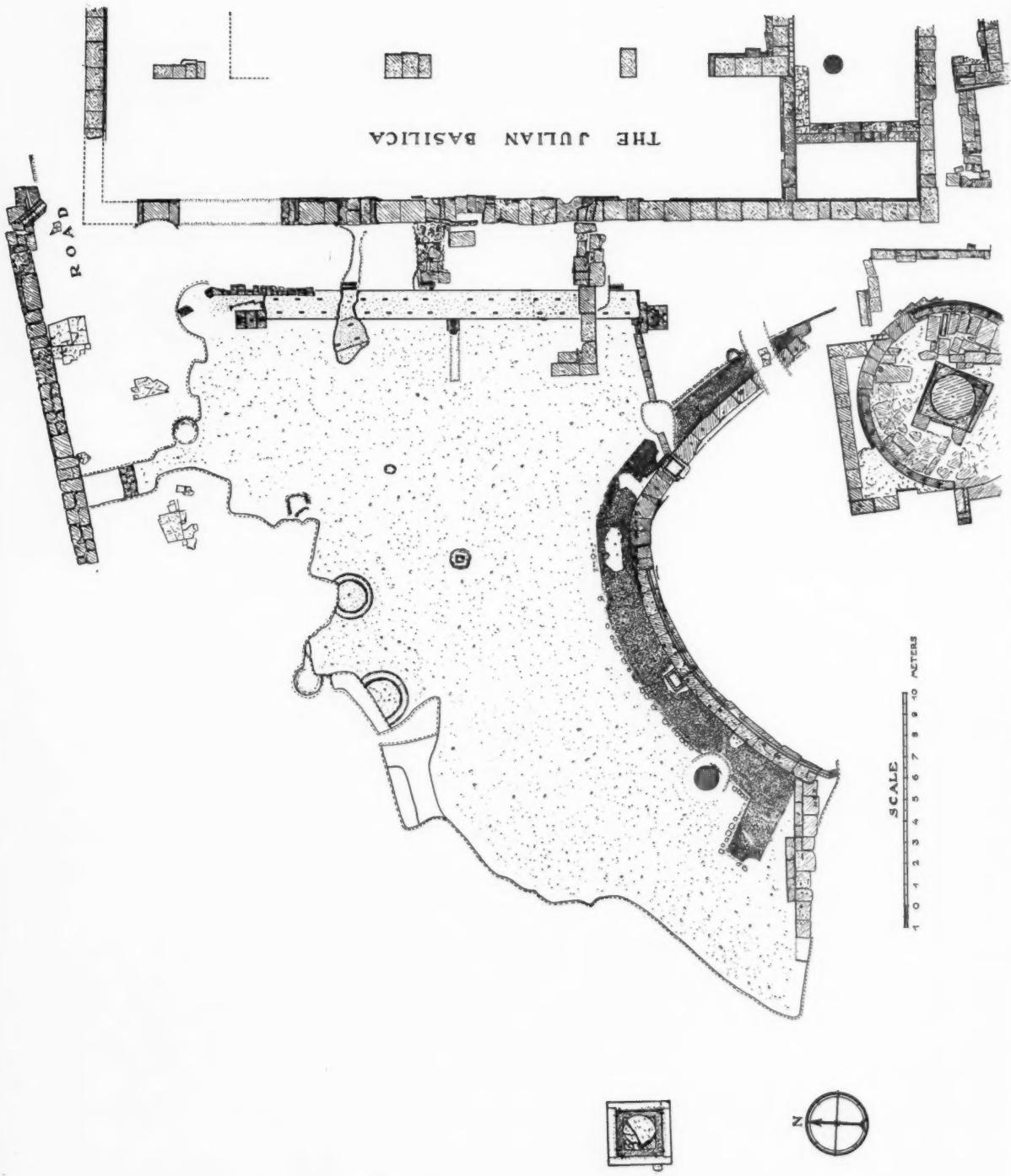




PLATE XVII, 1.—THE HELLENISTIC STARTING LINE FROM THE SOUTH



PLATE XVII, 2.—THE HELLENISTIC STARTING LINE AND CIRCULAR CUTTINGS



PLATE XVIII, 1.—GREEK RETAINING WALL FROM THE NORTH



PLATE XVIII, 2.—ROMAN MONUMENT BASE FROM THE EAST

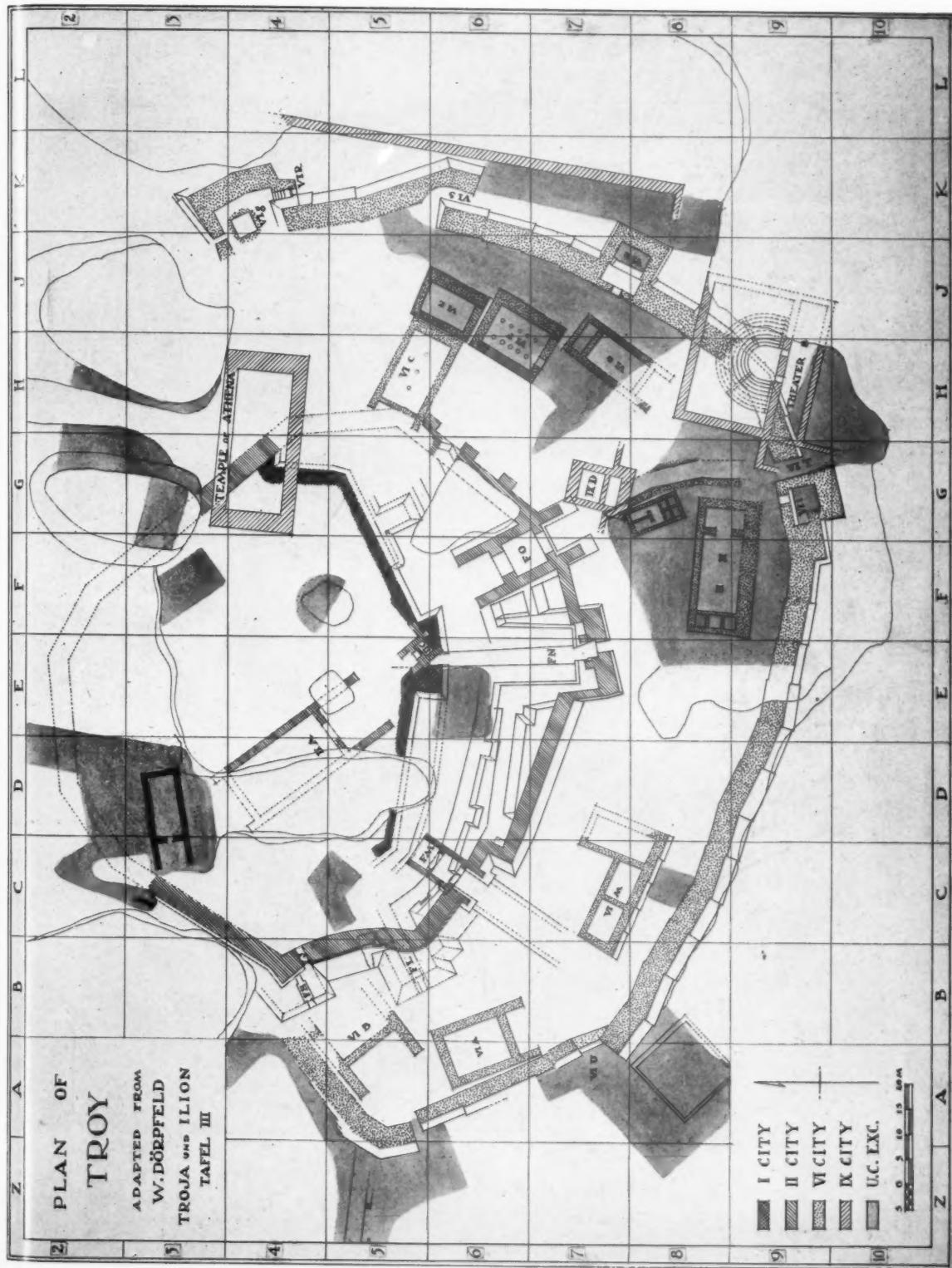


PLATE XIX.—PLAN OF TROY (Adapted from Dörpfeld by L. T. Lands)



PLATE XX.—SCULPTURED STELE, TROY I

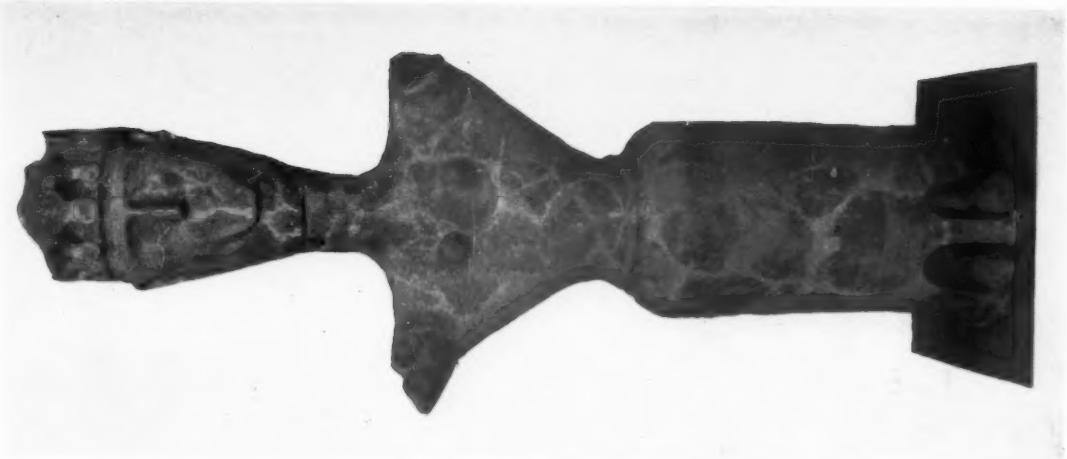


PLATE XXI.—TERRACOTTA STATUETTES FROM THE LASITHI PLAIN
(Courtesy of Mr. Pendlebury)



PLATE XXIIA.—HEAD OF PAINTED POTTERY FROM A
STATUETTE FOUND IN THE TEMPLE OF THE SCRIBE
AMENHOTPE. ATTRIBUTED TO DYN. XVIII

(Courtesy of A. Varille and C. Robichon)



PLATE XXIIB.—NORTHERN AND SOUTHERN CAPTIVES GRASPED BY THEIR HAIR, ABOUT TO BE
SLAIN BY A KING WHOSE FIGURE IS MISSING. FROM ARMANT. CA. 1460 B.C.

(Courtesy of Sir Robert Mond, the Committee of the Egypt Exploration Society and Field Director
Oliver H. Myers)

